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Sorgo Department.

The Report on Sorghum.

We believe our readers want to hear both sides of the Sorgho Controversy, and we give in this issue, articles written, it is fair to presume, by well posted friends on both sides. The following review of the long talked of report we find in the columns of the *Massachusetts Ploughman*:

The Report of the Committee of the National Academy of Sciences, on the Scientific and Economic relations of the Sorghum Sugar Industry is just from the Government printing office. From the many references to this document, its asserted great usefulness to the farmers of the country and the loud complaint about its tardy appearance, we were led to expect something really valuable in the way of a report. After carefully looking the document over, we feel deep disappointment. The Committee has performed a work which, whether from the scientific or practical aspect of the case, will reflect little credit on the National Academy. We were under the impression (which the correspondence with the President of the Academy confirms) that the Academy had been requested by the Commissioner of Agriculture, Dr. Loring, to report upon the particular work of the Department done by its late chemist, Dr. Collier. There would have been some reason in such a report since Collier's laboratory analyses were not borne out by his practical attempts at sugar making, and the Commissioner would have been justified in asking the opinion of the National Academy on these conflicting results.

Instead of this, we have before us a treatise on the general subject of sorghum, and one by no means creditable, for whatever value it may possess is derived from compilations and quotations from sources at the command of anybody, and we fail to find any attempt by the members of the Committee at a verification or critical consideration of the work of Dr. Collier which was submitted to the Academy. Indeed, beyond the historical data which have already been recorded in standard works, chiefly in old Reports of the Department, there is no vital information contained in this document other than the experience of a few successful manufacturers in 1882, or subsequent to the time when the Report was first submitted.

Such a document on the sorghum question would have been appropriate as a special from the Department which has all the facilities for compiling and preparing it; but it is not what one expects from a committee of supposed experts required to report on the special chemical work of the Department.

The Report is in three parts: Part I. contains 26 pp. of matter which comprises the report proper of the committee; Part II. contains 10 pp. of matter, being a summary with much repetition of Part I.; while Part III., which forms the balance (about 100 pp.) and the bulk of the Report, consists of "appendices." This part contains some valuable experiences, just such as the Commissioner of Agriculture has either already published or would be likely to publish, and one naturally wonders what could influence a Committee of the National Academy to lead it to suppose that the Commissioner of Agriculture called on it to do such simple work as his own Department is so well fitted to do. If the Academy should call upon the Commissioner to appoint a committee from the Department of Agriculture to write an essay on spectrum analysis, solar physics, prehistoric cockroaches or deep sea marvels, its action would not be more grotesque than its construction of Dr. Loring's request, which, by the way, is omitted from the official correspondence of the Report.

The curious reader who is in any way familiar with the sorghum industry will wonder what there is in the report proper of the committee (excluding the appended papers) that could not have been written a quarter of a century ago, and we can imagine the grim satisfaction with which that veteran and renowned chemist (a silent member of the committee), Prof. J. Lawrence Smith, looked upon the efforts of his associates to make capital out of facts which he himself had recorded as early as 1857; and the disgust of that other practical chemist, Dr. C. A. Goessmann, who declined to endorse the report, at the work of the committee in a field which he had already fully trod in 1861.

There is not a substantial fact established by the committee, at least from a chemical standpoint, that was not recorded by Vilmorin as early as 1855, or by Lovering in 1857, or by the earlier chemists of the Department of Agriculture; and the aim and object of the committee is rather laughably revealed when (p. 59) they put the cart before the horse and declare: "How closely most of Vilmorin's [1855] results compare with those of Dr. Collier" [1880-1]! In fact it transpires from almost every page of the document that the chief aim has been to laud Collier, and to make him out at the expense of all others, the sorghum sugar hero. It is rather sad for the reputation of the committee that in doing this they have likewise been forced into the attitude of endorsing his ridiculous and utopian corn-stalk sugar utterances; for if Collier's methods are reliable, then sorghum bears no comparison with corn as a crop. For this last, according to Collier, will, after yielding an ordinary crop of corn, give also, 1500 lbs. of sugar to the acre, and the bagasse will then be better than fodder for feeding purposes. On page 44 are some tables, quoted from Collier, which show that as high as 15 per cent of cane sugar was obtained from maize stalks, while 16.18 per cent was the highest from sorghum. Vilmorin in 1855 obtained as high as 16 per cent from sorghum.

We are not sufficiently versed in chemistry to judge of Collier's work, but a comparison of his analyses (p. 44) with one by Weber and Scoville (p. 110) does him little credit; while the specimen of the Committee's arithmetic on p. 44 ("16.18 per cent less 1.80 per cent, = 3.08 per cent, = 11.30 per cent.") does not enhance our opinion of its ability to judge of the problem. With its talk about "the Agricultural Species" (p. 23) and the "normal operation of natural causes," the plain farmers of the country will demand in vain the promised practical truths that were to be so useful to them in this year's operations and that have been ostentatiously heralded in advance. From the appended papers the sorghum grower may learn something useful, (all the important ones are available in other publications), but from the committee's work or that of Collier, absolutely nothing. With the exception of three, all its conclusions, which it credits to Collier are old sorghum truisms. The three conclusions which form the gigantic outcome of all this work and which have been so vaunted, are:

1.—That there is "practically little difference in the varieties of sorghum as to their content of sugar."
2.—That the sorghum seed "is a valuable feed crop comparable for fattening animals with maize."
3.—That the best time to cut the cane is when the seed is ripe.

With regard to the first and second conclusions, they are at variance with the practical good sense and experience of the country, and could only have resulted from theoretical figuring from closet and laboratory tests by an impractical person.

With regard to the third, which the committee deem the most important result of Collier's five years' labor, the report itself shows that experience is quite conflicting, and we have wondered why the conclusion which Collier has adopted (but by no means originated, as the committee supposes) should be accepted as final in the face of the opposed experience of some of the best practical sorghum sugar makers like Weber & Scoville, or of such chemists as Goessmann. The attention of our readers is called to a few of the extraordinary statements made in this report. On page 48 we find "that in successive years there were also obtained from the stalks of common maize, after the ripened grain had been plucked, at the rate of 900 lbs. sugar to the acre," a statement quite calculated to bring a smile on the face of every practical farmer—since it is well known that when the grain is fully ripe the sugar has almost entirely disappeared from the stalk. How delighted Messrs. Weber & Scoville and all their assistants in the sorghum investigations will be when they read in this report, page 53, "The fruits of this policy are already beginning to show themselves in the decided success which attended the few cases in which the rule of good practice, evolved especially by the researches made at the Laboratory of the Department of Agriculture, were better intelligently carried out." Perhaps the researches of the Laboratory of the Department of Agriculture, has helped successful sugar makers, but it has done so by their having been wise enough to avoid its blunders.

On page 50 the committee says: "From the numerous results given in Dr. Collier's report, it is obvious that the method of manufacturing sirup was such that nearly all of the sugar present in the juices of the sorghum or maize could be secured in the sirup, without inversion." It seems somewhat strange if this be so that in the practical working of the sugar crop at the Department, scarcely a trace of crystallizable sugar was secured, although the analysis showed nearly ten times as much crystallizable as uncrystallizable sugar in the raw juice. The only conclusion which we can draw from this strange result is either that Collier's analyses were made on single selected canes, and hence were of no value whatever practically, or that the report of Collier to the committee is untrue.

The committee begin the closing paragraph of their report by saying:—"The practicability of separating sugar from sorghum has been abundantly shown in a multitude of examples;" and we may add that the committee by their unscientific and irrational alleged investigation have done much to widen the breach between sorghum and sugar.

To a careful scientist it would seem that a committee composed in part at least of recognized leaders in science should have endeavored to ascertain the exact relation which the gradual loss of water of vegetation during the latter stages of the life of the plant bears to the increase of the solid matter, and the special composition of the latter, and to point out the natural influence of loss of water during the latter stage of growth on the density of the juice, before making their report. This, however, neither

they nor the Chemist of the Department have done. Nor have they considered the question of securing, if possible, an improved work of defecation, in order that a more satisfactory determination of the actually available amount of sucrose may be arrived at. They seem to have forgotten also that to impart to the results of agricultural field experiments carried on in Washington any particular practical importance for industrial purposes beyond a comparatively limited area of the States interested, is contrary to the teachings of well established experience in general agricultural practice, as well as to the history of the successful introduction of other sugar containing plants for the manufacture of sugar for the general market. The Commissioner of Agriculture, however, seems to have realized this when he called on the sorghum-sugar manufacturers in every section of the country to report their work to him, which has been done with such an admirable result.

Since this report has been long delayed since the Commissioner submitted the work of his Department, the country has been persistently informed for many months. But when we read in a prefatory note of the Committee that "the draft of this report was submitted to the National Academy of Sciences at its session in Washington in April, 1882," and that "the official copy of the Document was transmitted to the Commissioner of Agriculture in November following"—we cannot quite understand why the chemist of the Department and his committee should have allowed the charge of suppressing the report to be hurled incessantly at the Commissioner during the earlier season of 1882, without contradiction. We find our consolation, however, in the fact that the delay has occasioned no harm to the sorghum industry of the country, whose instruction must come from some other quarter than the small volume of compilation put forth by the Committee of the Academy.

Collier vs. Loring.

COL. COLMAN: No writer understands better than Howells how to sketch some representative of a popular folly in a ridiculous light. The sorghum enthusiast, as he was a few years ago, does not escape the kindly satire of his pen. In his unimpaired manner, which can hardly fail to provoke a smile even from those he hits, his latest serial pictures to us a loose-jointed, unpractical native of Illinois who sees great possibilities in the sugar manufacture for our Western states, as he has in many another project, for becoming suddenly rich, that "consumption devoutly to be wished" by all Americans. Col. Sellers and this man, who has just enough of the inventive and discovering spirit to half win our sympathy and interest, and yet not enough knowledge to save his heroic efforts from being futile, embody to many minds the type of the believer in the profits of the sorghum culture.

But there has been one man who, by his painstaking scientific labor and unremitting perseverance, has brought the scheme from visionary dreams to a basis of solid fact. Dr. Collier in his six years' labors in the agricultural department has solved problems and overcome difficulties that a score of years would not have begun to settle, had farmers worked on unaided by him. Experiments in the laboratory and the employment of the results of those experiments on a large scale at Rio Grande and other places show conclusively that this is no wild dream, but that the supplying of the home market for sugar with the home produce is practicable. Slow men at beginning to understand this, conservative men are admitting it. Already Eastern farmers are saying, "if we intend to make anything in this business we must not delay, or the West will sweep on by us absorbing large profits" and the Westerners are thoroughly aroused on the subject. It is a subject to arouse the interest of all who care for economy, since it directly affects the expenditures of every family in the land. And what reward is he receiving for his great work? As a farmer myself and a sorghum-grower, I wish to add my protest to that of the many others who have already spoken against the way in which he has been treated since his efforts have been successful, and others are beginning to reap rich returns from them.

His only crime, in my opinion, was much zeal in helping on the interests of the country, and for that he has been rewarded in office and we are deprived of further benefit from his services. The strange treatment of the Report of the Academy of Science which gave him only the praise his due, beyond reasonable explanation. My judgment, from all I can learn on the subject, and I have spoken with friends of Dr. Loring as well as with many who feel justly aggrieved, is, that the Government Chemist was removed simply because men had come to recognize the fact that he was chief authority in regard to the manufacture of sorghum sugar, and such superiority could not be tolerated by the Agricultural Commissioner. He, himself, aims now to speak as one who knows on the subject, though it is well understood that his knowledge is of the most superficial character. A fluent speaker on the topics of the day, he is far from being a deep thinker or one who takes broadly unselish views of the best interests of his department. Nor is it possible for a new

chemist, with little interest and less information in regard to this particular branch of industry, to satisfy the farmers in the particular questions which they are urging to have answered.

Much has been done and success achieved, but much more is needed that the best and most economical methods may be decided on. Our climate and soil furnish certain problems that can be solved only by the patient, competent investigator, and we know of but one man who, both by experience and capacity, is fitted to solve them. That he should be deprived of the opportunity is a wrong, not only to himself, but to the large number of cultivators who have been looking to his reports for directions, and have ever found in him an intelligent appreciation of their difficulties. It is not strange that there is indignation in the class to whom his work is of the greatest practical importance just now, that a superficial politician should deprive them of its benefit, and we cannot but hope that the President and Congress will make right the wrong that has been done.

Verona, N. Y.

From Indiana.

COL. COLMAN: To the many readers of the *RURAL WORLD*, I have many good wishes. The paper reaches me every Saturday evening, and I hasten at once to see if there is anything on the first page that will benefit me. I often find the page only half full (or a little more) of the reading that most interests me. I think there is not the interest taken that there ought to be. For my part I could read the old story over every week—how this one plants, how that one cultivates, how another one harvests, etc., etc. Since the kind editor has devoted one page of his paper to the interest of sorghum raisers, let's chip in and fill it up; it will help all of us. I have been in the business for three years, and read the paper for about four, and I feel yet as though I could learn for a long time to come. When I see so little interest taken in the *RURAL WORLD* by the more experienced men I sometimes think that they want to monopolize the Northern cane business by debaring the inexperienced from their successful experience. I hope this is not the case, but it will be well to be on the look out, for capital is very apt to try to monopolize.

Should cane be stripped before shocking, or shocked with the blades on? It will mold if piled only for a day or two with the blades on. There has been some complaint of poor seed, but the stand is good. The season has been very wet and late cane stands from four inches to fifteen inches high; corn not more than a half crop; wheat good; hay good; oats good; fruit generally slim crop.

H. H. H.

P. S. I expect to manufacture a large lot of apple jelly from pure apple cider, the coming season. Process very simple. Will this be stale or read in the *RURAL WORLD*? Let us hear from the editor as well as from the many readers.

Avilla, Indiana, July 14th, 1883.

We will welcome a description of your method of preparing jelly from apple cider, and will speak for our readers so far as to say that very many of them will do likewise.

Important—For Sale.

The following has been sent us by Mr. Bennyworth, of the Pioneer Sugar and Sirup Factory, Kinsley, Edwards county, Kansas, who explains that the reasons therefor is advancing age, and consequent inability to give the business his personal supervision:

COL. COLMAN: My new sugar refinery, located at Kinsley, Edwards county, Kansas, on the A. T. and Santa Fe railroad is now almost completed, and will have all the necessary and most approved machinery for successfully manufacturing sugar and refined sirup from Northern cane, such as vacuum pan, centrifugals, boneblack kiln and filter, defecators, evaporators, &c.; also warm room for granulating sugar. Capacity 100 tons.

The location is one of the very best in the State. The lands adjacent to the factory for growing cane are in the Arkansas River bottom, and have now in successful operation an irrigation canal with an abundance of water to overflow a thousand acres in a few hours. We think that parties have only to look for themselves to be convinced that no better location for the business can be found in the State.

I will sell the above (including a large tract of land if desired) at a surprisingly low price, and require but a small cash payment. Or I will lease for the present season, conditioned that the rental shall be applied to the purchase. Three hundred acres of cane will go with the factory.

Such an opportunity to test the new sugar enterprise at so small a risk seldom occurs. I would say, if you mean business, come at once to Kinsley, Kansas, as no time should be lost. This section has had abundant rains this season. No irrigation has been necessary. Crops that have been cared for could not be better. Yours truly, J. BENNYWORTH.

Questions and Answers.

EDITOR *RURAL WORLD*: Enclosed find a few questions and answers. As I have seen some of them asked and answered in the *RURAL*, I have endeavored to give my views. Hope it will help some of my sorgho brethren who have had less experience. I began it in 1886, and have worked at it ever since. I have not missed a year, still have faith in the sorghum industry, and intend to stick to it, and I know it will stick to me. I learn much from the *RURAL*. Hope that the brethren will fully discuss but not cuss the sorgho interest. Yours, L. F. G.

Hastings, Neb.

1. How many pounds of sorghum sirup or molasses make a gallon?

Ans. Eleven pounds.

2. How can I make the lightest and best molasses?

Ans. By evaporating in a shallow body and as quick as possible, and by skimming thoroughly.

3. How long should the juice be on evaporator?

Ans. Not over thirty minutes.

4. What kind of barrels are best for sorghum?

Ans. New cypress, but second-hand molasses barrels will do if well cleansed with lime and boiling water.

5. Will it do to keep sorghum in a warm, dry place?

Ans. No. It should be kept in a cool, moist place, or the barrels will leak.

6. Where can I sell my sirup?

Ans. At home, if you make a good article. If you don't make it good, don't try to sell it at all.

7. What is the best way to strip cane?

Ans. Take two sticks, three feet long, like a common lath, sharpen the edges on one end, use one in each hand, striking down the sides of the stalks.

8. How can I top cane fast?

Ans. Take a sharp corn knife, go backwards on each row, letting the cane bend under your left arm, and clip off the tops as you come to them.

9. Is it best to strip the cane or work it without?

Ans. It pays to strip it.

10. How may new beginners learn the business of molasses making?

Ans. By working at it himself. Experience is the best knowledge.

St. Clair County, Illinois.

Succeeding the efforts that have been making for some months past, the enterprising farmers of St. Clair county, Illinois, met at Belleville a few days since with Mr. Henry Studniczka, of St. Louis, and after an address from him and an interchange of thought, formed a stock company for the manufacture of sugar and sirup from Northern cane, with a subscribed capital of \$25,000. The formation of such companies in the cane industry are becoming more and more popular every year throughout the country.

There is no place in the world so favorable to the growth of melons as Southern California. Two crops can easily be raised, and from the pulp of the watermelon, or the nutmeg melon, a vast amount of sirup and sugar can be made easily and at small expense. The sirup from melons is most delicious and costs but little to manufacture. The pulp is scooped out of a melon with a spoon and thrown into a tub with a strainer at the bottom, out of which a very clear, sweet juice comes forth that requires but little boiling to make sirup, and afterward sugar. In northern Italy and Hungary the people make a large amount of sirup and sugar from melons. The largest sugar factory in Europe is said to be in Zombor in Hungary. It was made to use beets for sugar making, but in the melon season finds it more profitable to use melons. Los Angeles should have a factory of this character. The expense would be trifling—a couple of brick arches, with an evaporating pan on each, would make a barrel of good sugar per day. The only thing needed is to use the best method of clarifying the sugar. It requires all the product of our gold and silver mines now to send abroad to pay our sugar and molasses bills. We can stop a large portion by making sirup.—Los Angeles Herald.

This year the Lafayette Sugar Refinery has removed into the country seven miles from Lafayette, near West Point, Ind.; has erected suitable buildings, will plant 200 acres of sorghum; will buy all that can be had besides; and are using 200 pounds of phosphate with each acre of corn. Prof. H. W. Wiley has withdrawn from the company and E. W. Deming is superintendent.

In Russell County, Kas., the cane crop is very promising, better than last year at this time. We have planted Early Kansas Red principally and it promises to make earlier cane than last year, being now two feet high. The average in this county is increased fully fifty per cent. over that of last year. E. S. C. F.

Col Curtis says a patch of sorghum to cut in September to feed the pigs has become a necessity. A quarter of an acre sowed in drills will keep twenty pigs growing for a month. He also says it is good to induce a full flow of milk from the cows.

Any one wishing to get Isaac A. Hedger's book on the cultivation of Northern sugar cane can get it by sending one dollar to this office.

Soil Exhaustion—No. 2.

ED. *RURAL WORLD*: The direct relation of sale crops to the fertility of the farm, as indicated, can be, so far as the elements of the plant growth are concerned, quite accurately stated; but this direct soil depletion by sale crops is not the only loss we have to meet when those sale crops are those involving tillage. The crops sold from this State are tillage crops, or crops calling for the use of implements to stir the soil annually and involving a bare surface over a considerable portion of the year. One of the obvious and visible results of tillage crops versus grass is the washing of the ground. Over our corn fields I notice frequent underground surface channels formed by the water in heavy rains, the surface of the ground itself being formed in minute channels up to those of considerable proportion. Our fine soil favors this movement of soil in rains and, unfortunately, it is the finest and best of the soil that is moved by water, the soluble and the more easily soluble portions of the soil. The magnitude of this movement is attested by our muddy rivers, deeply silted, in marked contrast with the clear waters of New England, yet those New England waters are impure enough to be valuable for irrigation, as experience has proven. The Mississippi river is said to carry to the Gulf of Mexico 8,000,000 feet of solid matter hourly, and the more tillage crops are grown in its valley the more impurities it is bound to carry. The invisible losses resulting from tillage have a deep significance, and would have force with each individual farmer if the American farmer fostered local attachments more, and cherished the hope that his farm would become the heritage of his family line through generations. Two avenues of loss are opened by tillage; one by escape of nitrogen from the soil in dry times from a bare surface, and the other by leaching of nitrogen in its compounds and the loss of soluble salts from the leaching of rains. The discussion of these points might be extended so fully as to become offensive to the practical farmer. I must insist, however, that these points are no fanciful conceptions of scholastic farmers, nor of such insignificance as to be merely calculated to please the fancy of speculative husbandmen.

Out of the long array of evidence I will quote only twice—once from scientific inquiry, and again from the broader field of farm inquiry. From a report to the Chemical Society of England it was shown that soil 3 inches deep and 15 inches in diameter, exposed to rain from July 4 to October 4, had washed from it, where nothing was grown 220 grains of solid matter. Where clover was grown only 48.1 grains were washed out. Such a fact will answer to speculate upon, and is not conclusive. It would not be given if evidence conclusive did not many facts corroborate. The statement given is simply a convenient expression of a general fact for soils where leaching occurs. Sir John B. Laws has just published most valuable facts, gathered from over 40 years of practical farm investigations. The table shows the amount or per cent. of nitrogen in the first 9 inches of soil at Rothamstead:

Roots grown continuously by mineral manures	0.0934
Wheat grown continuously by mineral manure	0.1000
Ordinary arable land just laid down to pasture	0.1235
Pasture laid down in 1872	0.1309
Pasture laid down in 1873	0.1240
Pasture laid down in 1874	0.1199
Very old pasture, age unknown	0.2466

Warrington, speaking for Rothamstead, shows that there is not only twice the nitrogen in pasture that there is in tilled field, but twice also of carbon. Again I have before me tables of Sir John's that show a loss of 40 lbs. to 50 lbs. of nitric acid yearly in a 60-inch rain lysimeter, an again that loss is less from a covered soil than from an open or uncropped soil. A loss to the Mississippi valley of 2,000 tons daily of nitrogen is estimated, which is equivalent to 18 lbs. per acre yearly for each acre of the valley. This fact has no particular relation to my subject further than to show a drainage loss, a loss that increases with increase of tillage and would decrease with decrease of tillage crops.

As my purpose is to point out the fact of loss by tillage cropping, rather than to enforce the fact, I will not enter into a detailed statement by way of proof. I expect the general fact to interest but few, but give it as an additional reason in antagonism to our faulty system of farming that is selling the very fat of the land to enrich foreign lands, without enriching our own people; for the point of fertility is now reached, over large areas, where the crop is of so low average that it does not enrich the producers. Survey the field from the standpoint of the coming generation of farmers, the facts militate fairly and strongly against the sale of raw products from our borders. If it is allowable, let me suggest that the higher the type of farming the broader the manhood it develops. If I should attempt to elucidate this point the relation of intelligence to the social and material position of the farmer would need be surveyed, and thus too broad a field would be opened. Happily the type of farming that promises the greatest individual profit to our farmers mainly avoids both the evils reviewed. J. W. SANBORN. College Farm, Columbia, Mo.

The Shepherd.

Pandering to Prejudice.

The position of the RURAL WORLD on the price of wool and the influence of the tariff as conducive thereto, is well known to its readers. The theories entertained and advocated by the New England press and commission men were given fully in our last issue, and they confirmed all that we have said; namely, that the tariff has so far produced but a slight influence or effect on the market, unless in so far as speculators and manipulators have attempted to make the people believe so. This, however, had its effect upon many, and the wool-growers of Ohio, manipulated by politicians whose statements were repeated and pandered to by the press, without stopping to examine the matter for themselves, or trace effects back to causes, early jumped to the conclusion that all their losses were chargeable to the tariff and this to the tariff commission.

Meetings were held, speeches were made, resolutions adopted and published, just as though a desecrating industry had been most unmercifully and unjustly attacked, and that the best people in the world—the wool-growers—were to be unconsciously ruined by a soulless congress and their tools, and dupes the commission appointed by it.

This sudden and unheard of interest in the wool-growers' welfare, on the part of the politicians and the press, did not excite a suspicion in the minds of their proteges; on the contrary they accepted in good faith the hand extended to them, false though it was; the voice was the voice of Jacob, but the hand was the hand of Esau.

Whoever heard of the politicians taking the slightest interest in the wool-growers, or other farmers, unless they had an axe to grind, and could gain their sympathy and votes by throwing dust in their eyes, and then lead them like lambs, to the slaughter? The Ohio fusillade was taken up and echoed by the mountains of prejudice and shallow ignorance in a number of states, and was heard for a time, again and again, until 't'he sober second thought had matured and reason had time to examine the question and determine it on its merits; then, lo and behold you, it was not the reduction of the tariff—which hadn't gone into effect—but the over-production of woolen goods by the glutinous manufacturers that had stagnated the markets. They had bought wool and manufactured it into cloth, until the stocks had accumulated beyond their capacity to carry the load and hence had to suspend operations, and to buy the raw material under such circumstances was not only out of the question, but a matter of impossibility. Says the Utica, New York, Herald:

"There are probably 2,000 woolen mills in the United States. Many of them must be small, for the table of the last census shows that the 400 mills in New England consume more than half of the wool which is manufactured in the country. Facts which have been collected from that section, by the Boston Advertiser, therefore, are of special importance. It must be admitted that their showing is poor. New Englanders are not men to give up at the first call of over production. They will seek to make their property earn something, while there is any chance. Yet one-third of the 250 mills from which the Advertiser has had reports are now shut down, and the number is likely to be increased one-half by mid-summer. There are 750 sets of cards idle. Makers of cassimeres are most discouraged. Their trade seems to be in a worse condition than that of the worsted or flannel men. So it was in 1879. The effect upon the wool market must be immediate and considerable. The reduction involves less consumption, in New England alone, by over 325,000 pounds a day. When the facts come in fully, as to this year's clip, it will be possible to learn more of this. Generally speaking the mills which are obliged to give up, are the weaker ones, whose goods have no special reputation and command no extra price. The overstocking of the market seems to be genuine. Large auction sales have been held in Boston, within the week, in which goods have been sold at a sacrifice."

If then these mills were more widely distributed over the country, affording a home market for the wool produced and supplying an equally good market at home for the manufactured article, this wholesale suspension would not have been a necessity, hence would not have taken place.

But the political writers and speakers will still make a show of a bad case even though it be made out of whole cloth, as the following from the Bethany, Mo., Republican witnesses:

"We call attention to an article that appears on our first page, taken from an exchange, in which the wool market is discussed and its condition shown. Wool is lower this year than it has been for years and even at its rating price, dealers and manufacturers hesitate to handle it. The reason for this is plain. In a few months a Democratic House will convene, and it is the fear of its action on the wool tariff that now makes such uncertainty and dread. The Democratic party is committed to free trade, and if possible will remove what little tariff that is now charged upon foreign wool, and throw our market open to the competition of the other wool-producing parts of the world. Who is the sufferer by this? The farmer and sheep raiser! How many thousands of dollars will the farmers of Harrison county alone lose this year by the tariff agitation, and its effect upon the price of our wool? Who is responsible for it? The Democratic party. The present low prices of wool, and the reason causing it, is a stronger argument for protection, as a benefit to farmers, than columns of statistics. It is practical and shows every man who has a little wool to sell just how free trade will affect him. Voters, read the article and ponder over it."

The article referred to was not in that portion of the Bethany paper which reached this office, hence we know nothing of its transcendent merits, but we do know that the wool-growers of the West cannot be bamboozled by any such barefaced and impudent falsehoods; and this pandering to prejudice, whilst it may be

made a political cry that shall serve its purpose for a time, can hardly fail, boomerang-like, to return where it came and make the last end of that man worse than the first. Take the following sober and sensible remarks on the suspension of production from the columns of a great commercial paper published in the very midst of the woolen goods market:

"The Boston Commercial Bulletin, of June 23d, publishes a list of twenty-five woolen manufacturing companies, which closed on June 16th, as well as several others which would close before July 4th. These are in addition to several companies which had stopped work previous to the 16th. These woolen mills represent a consumption of over 5,000,000 pounds of wool per week. The cause of the suspension of work is the dullness of the woolen goods market, arising from its being glutted by an over-production of woolen goods. No remedy is available other than that adopted, viz., to suspend work until such time as the demand overtakes the supply. Meantime, thousands of operators whose only dependence for the support of themselves and families is work in the mills, are thrown out of employment, and much suffering must result to many before work will be resumed. The cost of the raw material from which the stocks of woolen goods now on hand were made was so enhanced by the high tariff on wool that goods cannot be sent out of the country to be sold in competition with the manufacturers of other nations except at a loss. Protection has cut off the woolen manufacturer from every market in the world, except our home market. The outlook for the wool grower is not favorable for high prices. But while the wool grower and manufacturer may suffer from the present condition of the wool and woolen goods market, the public at large is getting cheaper goods. We have never in our recollection seen clothing and other woolen goods so cheap as at the present time. When a good boy's suit can be bought for four from seven dollars, and a respectable business suit for from nine to fourteen dollars, clothing is within the reach of the millions."

Wool or Mutton.

It is oftentimes the case that when an industry by any means gets a "set back," men engaged in it are apt to "fly the track," and look for something else, something that is in the flow of prosperity and at present unhampered by checks and unburdened by prejudice. That many will be induced to do this with wool growing with the present outlook may be expected, be the cause of stagnation what it may. There is little occasion for this however if we but diligently and economically pursue our vocation, for the man that breeds sheep has "three joined in one," lambs, wool and mutton, and more. A late issue of the Chicago Tribune discourses on sheep husbandry thusly:

"It may be that wool can still be grown profitably, even on lands near the great cities. It must be admitted that more land is cultivated than is well filled in this as well as in most other States. Wool, it is not better to let more land lie in pasture for sheep, even under the present prospects, than to wear out men, teams, and implements in scratching over eighty acres to get a forty-acre crop? The production of mutton has received comparatively little attention from farmers in the Western States, and the growing of lambs for the early spring market has not yet become a large industry near the large Western towns. Yet large, thrifty lambs have sold well in February, March and April, in Chicago and East, every year. There is no apparent reason for thinking they will not continue for years to do so, for the demand grows even more rapidly than does the supply. This is a branch of farming in which those at a distance could not compete with the farmer within a few hours' ride from town, because young lambs are too soft and tender to bear shipment any considerable distance. They soon shrink in weight, and their flesh quickly becomes dark, soft, and unattractive when dressed after a long ride in the cars. The Merino and its grades are seemingly the popular sheep in Northern Illinois. Whatever its merits may be, and they are undeniably great, its most ardent advocate will not claim that the Merino is a good mutton animal. The question suggests itself, 'Could not the raising of mutton, and of early lambs especially, be made a profitable branch of farming, leaving the price of wool out of the question, by those living within a few hours' travel from any large city?' In March and early April thrifty lambs sell for \$5 to \$8 each, a price which is surely great enough to pay all expenses and leave something more than the manure for profit."

Foot-Rot and Its Treatment.

Before the treatment is given there ought to be a description made with some care of the disease itself, to prevent faulty diagnosis. In the first place, it is not seated in the bifur canal. This canal is a duct leading from an oil-gland which secretes a viscid whitish unguent for the lubrication of the inside of the hoofs, and which has its mouth directly above the cleft in the point of the foot. Some ignorant men believe that this secretion, when exuding from an unhealthy foot somewhat sluggishly in a ductile vermicular string is "the worm of the foot-rot" or the "seed of the foot-rot!" They will press it, cut with the thumb and declare roundly, "there is the very foot-rot itself!" I have seen a statement somewhere that foot-rot is caused by the obstruction of this canal and its consequent failure to supply the lubricant necessary to prevent galling in the cleft. This view is partly sustained by the circumstance that the disease is most prevalent in those sheep walks where an excessive amount of moisture has a tendency to chill the feet and impede circulation in them.

There are sometimes boils occurring between the hoofs or about the heel, which upon being lanced discharge a quantity of pus; but it is hardly necessary to remark that these are not the dreaded plague.

Foot-rot begins in the bridge or junction of the cleft, and its primary stage consists in a transformation of the skin from its normal smoothness, dryness and pink-color to a whitish, parboiled and somewhat wrinkly condition, accompanied by the fetor common to this malady and the scald-foot. A thin, serous effusion sets in, which, as the disease advances in malignancy, assumes something more of mucopurulent character.

This corrosion of the tissue, accompanied by a downward flow of the pus, until it reaches the line of junction of the skin and the horny walls of the inside of the hoofs, when it dives under the latter and attacks the body of the foot. Soon it completely invests the foot within the covering of the hoof, which it causes to cleave from the foot and hang only by the skin at the coronet, so that it can easily be wrenched off by the hand. The foot becomes a mass of hideous ulceration and is totally consumed, if indeed the sheep has not perished miserably from the migration of the virus from the hoof the bricket and its consequent invasion of the entire body, with its army of destroying maggots.

It is not worth while to cumber this article with even a mention of the numerous remedies proposed for foot-rot. Blue vitriol is assigned to the first place by the almost unanimous testimony of the best flock-masters. Of the dozens of them among my acquaintance, good, poor and indifferent, I know of no one who uses anything else.

The point of supreme importance in the administration of any remedy for foot-rot is to bring the remedial agent in contact with the corrosive poison wherever it is at work, to make it hunt out every minutest germ in its lurking place in the complicated structure of the foot. For this reason, the vitriol will do its work better in water (a saturated solution) than it will in any less diffusible matrix, as white lead, or tar, or any thing similar. And for the same reason also hot water, as hot as sound flesh can bear it, is better than cold. Another point of the highest importance is to make the vitriol stay where it is put until it does its work. Hence the hoofs should be as clean as possible from dung and dirt before the application is made, and be kept out of water for a day or two afterward. The knife must be applied thoroughly—yet not so as to cause a trouble some effusion of blood—to lay bare the disease in all its hiding-places, cutting away the hoof and the gristly integuments wherever any virus may possibly lurk beneath. To this end any measure which will fetch the sheep's feet much in the water for a day or two previous to the operation not only cleanses them, but softens the hoof, which is an important matter, since after some hours' soaking the pocket-knife will readily pare away a hoof which when undisturbed by several days of dry weather would yield only to the chisel and mallet.

As the operation generally has to be performed in summer, it is well to keep the flock on dry feed a day or two beforehand, so that the dung under-foot may not be so diffusive when the time comes for operating. If they can be kept standing on wet straw their hoofs will be soaking in the meantime. Then if driven through high wet grass the feet will be partly washed, and the cleaning may be completed with a swab in a tub of water. After the paring has been done, let the sheep stand fifteen or twenty minutes in a shallow vitriol foot-bath, say two inches in depth, strong and hot, as above described, and kept hot by the occasional removal of some of the liquid and the replacing of it with some freshly heated. After leaving the bath the sheep should be confined on a dry hard floor for one or two days, where, if the hoofs have been previously kept on dry feed for a short space, the manure on the floor will not seriously abate the effects of the vitriol on the feet.

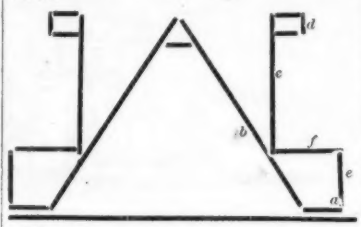
This is the way to stamp out foot-rot—a process short, sharp and severe, says Stephen Powers in the Ohio Farmer.

Sheep Barns.

Sometime during the summer and fall we presume that those who thus far in life have neglected to provide suitable winter shelter for their sheep, will construct at least a comfortable shed and, perhaps, a commodious barn. We wish to say to any who do not realize the fact, that it will pay to do so. The sheep is pretty well protected by nature, and it is not necessary to enclose them in a shed, if they are protected from the wet. The theory is correct enough, for we all know that in many cases they do stand it because they have to stand it. Nevertheless it is a fact that cold weather will exhaust the animal heat even of a sheep. There is an English experiment on record where a flock-master fed a flock in the open field and another in a warm shed, upon precisely the same kind and quantity of food. In the winter the result was that the sheep out doors gained one pound per week while those under the warm shed gained three pounds, and ate less food. This is sufficient without comment. It is perfectly reasonable, whatever theorists may say. If care is taken to provide perfect ventilation, shelter from the cold, except when exercise is necessary, is very desirable. As all who have experienced know, there should not be too much crowding, but that is not necessary in order to have shelter. Mr. Mechi stuck the nail on the head when he advocated shelter for all farm animals. It is true that we question the advisability of shutting up animals that have never had any care bestowed upon them. Whenever sheep, or other farm animals, have been turned out from the very beginning of their existence, to rove wild over the fields, without any sort of restraint, the nervous excitement of being confined will more than outweigh any advantage that may be gained. But that is not the way to raise stock. We wish to say right here, that the breeder who begins early to accustom his stock to his presence and voice, to reasonable restraint and inspires its confidence, will make money by the operation.

We believe that every flock-master who is engaged at all largely in the business, should have a well-constructed and convenient barn. An open shed is better than nothing, but the best flock-masters in this country pretty generally agree with the opinion that we have expressed above, that sheep are better in good, warm quarters in winter. The only question to settle is, what shall the barn be like? Now it ought not to be difficult for anybody to plan a barn, unless he wants a very elaborate barn. In constructing a sheep barn, the sheep stables are to be in the basement, but not underground. The structure, therefore, will be so built that the main entrance is approached by bridges, the basement wall for such a purpose should be of concrete. It is almost impossible always to have a dry basement unless it is. No rule need be laid down for the dimensions of either basement or the barn above, except that it requires about 1,600 square feet for a hundred long-wool sheep, or one hundred and fifty Merino. That would be a barn 40x40 feet. As we have several times noted,

the main floor above the basement should be very tight, to prevent the dirt and dust from sitting down upon the sheep. The fodder can be dropped through a trap door into the rack, which should be built through the center of the basement, and so arranged that the sheep can feed from either side. Prof. Stewart gives a plan of a desirable sheep rack. He takes scantling five feet, eight inches long and places them about thirty inches apart. He then constructs the whole according to the following figure, which is an end view:



The bottom of the trough, a, is made of plank 1 1/2x3 inches; b is the sliding board reaching down and is nailed to the bottom board of the trough; c represents the rack slats, 1 1/2x2 inches nailed to the sliding board six inches from the bottom, and raising three feet and nailed at the top, d, to a scantling, 2x2 1/2 inches. The slats are placed three inches apart, and lean from the trough four inches at the top; e is the front side of the trough eight inches wide; f is a bar across the top of the trough, to divide the trough and to prevent the sheep from getting into it. These bars are placed at every third slat, or may be placed at every second one. This is a grain as well as a hay rack. Nothing is wasted in it, as the short bits slide down the sliding board, through the slats, into the trough, and when covered with a little meal will be eaten. The rack, as will readily be seen, can be made single as well as double.—Western Rural.

The Apiary.

Bee Hives.

MRS. E. S. TUPPER.

Every bee keeper ought to have his hives made during winter, ready for the summer's use, whether he needs two or three, or as many hundred.

In the multitude of bee hives, patented or not, each and every one of them, in the opinion of the maker or patentee, the "greatest and only show on earth." It is difficult for a novice, or even a bee-keeper of some experience to decide which is best. The temptation is great to try every promising new hive, and we have seen apiaries that were second only to the patent office at Washington as a curiosity. We are not going to name any of them as preferable to all others. We are not found of "treading on people's toes." Many of the patented hives have good features—some are nearly perfect—and yet the very best of them will not do the work of either bee-keeper or bees, and that is just what some people expect a hive to do! It is also what some patentees claim their hive will do.

As consistently might one buy a plow or harrow and put it into the field, expecting it to do his work for him. Neither will bees do any better in the best hive, without assistance, than in the roughest hives or salt barrel. The sole advantage in a modern hive over the old style, is to give the bee-keeper perfect control of his bees, so that he can know their exact condition at all times, and control and aid them when they need help and control. We have all seen patent hives in which bees were far beyond any control, as in the case of the hives of the late General Sherman, of which I have now taken three boxes and yet the owners expected great things of them because the hive was nice. There have been great improvements in the facility with which hives can be opened and examined, and also in the method of securing honey in the comb or with the extractor, but to secure these advantages, a little expense is necessary. The bee-keeper, wishing to experiment and to have his bees in fancy shape without regard to expense, can make his hives as nicely and as comfortably as he chooses. To the beginner, and the person who keeps bees for the profit there is in them, they should be made as cheaply and simply as possible, having regard only to certain requisites which we deem absolutely necessary for profitable bee-keeping.

First. To keep bees either for pleasure or profit, the movable frame in some form must be in every hive. There is no other way to make the matter a certainty by giving the absolute control of the bees.

Second. These frames may be used in a square box, or oblong shallow hive—large or small as may best please the owner. We much prefer a hive as nearly square as possible, and have best success with the frames in such hives.

Third. These frames should be arranged so as to fit perfectly, move easily, and so as not to touch any of the walls of the hive, and yet not be more than three eighths of an inch distance from them.

Fourth the hives should be all alike so that every frame will fit every hive in your apiary.

Fifth. When increase of stock is desired the hives must not be more than one foot square inside every way; but if largest amounts of honey are desired, they may be made much larger and will more surely secure that object.

These hives are furnished ready to nail together so cheaply that it is poor economy to buy in any other way. In the "knock down" with one hive put together as a guide, any woman can nail and paint them.

The poorest of all economy is to have hives poorly made of unseasoned lumber. A hive should be a "perpetual institution," and however simple, should be well made in every particular.—Bee and Poultry Monthly.

ROUGH ON RATS.—Clears out rats, mice, roaches, flies, ants, bed-bugs, skunks, chipmunks, gophers. 15c. Drug-sticks.

IN THE COUNTRY ALL SUMMER.—The man who takes his family into the country for the summer should remember that he will save his children a great deal of pain and himself a large amount of money in doctors' bills, if he is thoughtful enough to carry a supply of PERRY DAVIS' PAIN KILLER. The medicine is a standard specific for all cases of cramps, colic, cholera morbus, diarrhoea, or dysentery.

POTATO BUG POISON.

Write to HEMINGWAY'S LONDON PURPLE CO., (Limited), P. O. Box 100, No. 90 Water St., New York, who will send prices and testimonials.

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FOR SALE BY CHAS. E. PRUNTY,

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Between Market and Walnut. Prices according to market value.

RED WHEATS. Early Michigan, Velvet Chaff, Lancaster, Bearded.

AMBER WHEATS. Early May, Smooth, Fultz, Smooth.

WHITE WHEATS. Tappanahock, White Chaff, Clawson, Red Chaff.

Full Barley, Seed Rye, Red Rust Proof Oats. GRASS SEED—Timothy, Clover, Red Top, Blue Grass, Orchard Grass, Hemp Seed.

No Whiskey!

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is one of the very few tonic medicines that are not composed mostly of alcohol or whiskey, thus becoming a fruitful source of intemperance by promoting a desire for rum.

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is guaranteed to be a non-intoxicating stimulant, and it will, in nearly every case, take the place of all liquor, and at the same time absolutely kill the desire for whiskey and other intoxicating beverages.

Rev. G. W. RICE, editor of the American Christian Review, says of Brown's Iron Bitters:

Cin., O., Nov. 16, 1881. Gents:—The foolish wasting of vital force in business, pleasure, and vicious indulgence of our people, makes your preparation a necessity; and if applied, will save hundreds who resort to saloons for temporary recuperation.

BROWN'S IRON BITTERS

has been thoroughly tested for dyspepsia, indigestion, biliousness, weakness, debility, overwork, rheumatism, neuralgia, consumption, liver complaints, kidney troubles, &c., and it never fails to render speedy and permanent relief.

SCROFULA

and all Scrofulous Diseases, Sores, Erysipelas, Eczema, Pimples, Ringworm, Tumors, Carbuncles, Boils and Eruptions of the Skin, are the direct result of an impure state of the blood. To cure these diseases the blood must be purified and restored to a healthy and natural condition. AYER'S SARSAPARILLA has been recognized by eminent medical authorities as the most powerful blood purifier in existence. It frees the system from all foul humors, enriches and strengthens the blood, removes all traces of mercurial poisoning, and proves itself a complete master of all scrofulous diseases.

"Some months ago I was troubled with scrofulous sores (ulcers) on my legs. The limbs were badly swollen and inflamed, and the sores discharged large quantities of offensive matter. Every remedy I tried failed, until I used AYER'S SARSAPARILLA, of which I have now taken three bottles, with the result that the sores are healed, and my general health greatly improved. I feel very grateful for the good your medicine has done me."

Yours respectfully, MRS. ANN O'BRIEN.

148 Sullivan St., New York, June 24, 1882.

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stimulates and regulates the action of the digestive and assimilative organs, renews and strengthens the vital forces, and speedily cures Rheumatism, Catarrh, Neuralgia, Headache, Gout, Debility and all diseases arising from an impure blood or corrupted condition of the blood and a weakened vitality.

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But by patient and scientific chemical research we have improved in several points, and now offer this new color as the best in the world.

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BEWARE of all imitations, and of all other oil colors, for they are liable to become rancid and spoil the butter.

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READERS OF THE RURAL WORLD, writing to or calling upon any one advertising in our columns, will do us a favor if they will say they saw the advertisement in this paper.

On and after October 1st, 1883, letter postage will be two cents for each half year or fractional part thereof between all points of the United States. The rate will then be the same on drop letters and all others. No changes have been made in rates on other classes of matter.

The premium list of the forthcoming, or twenty-third annual St. Louis Fair, has been issued and may be had by addressing the Secretary, Festus J. Wade, St. Louis.

The heavy shipments of watermelons to this market the past few weeks furnished some valuable experience to shippers, but at a ruinous expense. The net proceeds for many of the Georgia shippers was most discouraging. Many of the cars used were about air-tight, lacking the very important element of ventilation so essential to success in shipping melons such long distances.

GRAPES appeared frequently in the St. Louis market a month ago, but during the past few weeks, the markets have been entirely barren of this attractive fruit. Whether it is owing to a failure of the crop in the South, or to the indifference of growers, does not appear, but certain it is that inviting prices can be had here at present. Alabama made several shipments in the early part of the season and later Texas made a few shipments.

St. Louis is a great tomato market, nearly every family being a customer when prices are at all reasonable. To supply this wide demand, half a dozen states contribute—Texas, Alabama, Mississippi, Louisiana and Arkansas tomatoes have been offered at once, and now the bulk of the shipments come from Arkansas and Southern Illinois. The producers further South are crowded out. The growers in this vicinity, or at least a number of them, began bringing in tomatoes two to three weeks ago, surprising the Southern friends as competitors unusually early.

It is probable that a very large amount of buckwheat will be raised this year on account of the short wheat crop. Farmers would, we think, usually find it advantageous to raise a large crop of buckwheat each year, as it is easily raised and always commands a good price, while it does not require the richest soil. The soil should, however, be well pulverized, and with this condition provided there need be little apprehension of failure. Perhaps no crop gives quicker returns of equal value and with as little special care and labor, while none leaves the ground in better condition for succeeding crops.

The Wild Goose plum is evidently receiving a good deal of attention at the hands of fruit growers. With the exception of apples, no other fruit has been so abundant in the St. Louis market the past few weeks. Arkansas began with liberal consignments a month ago, later Tennessee followed, and still ships; and now Southern Illinois is forwarding large quantities. Prices throughout have been very remunerative, and will serve to stimulate further cultivation of this excellent plum. Arkansas shipped the largest and finest specimens offered here this season, some of them selling at \$1.70 per box, while \$1 was the average price so far this season.

The Southern Exposition which opens at Louisville, Kentucky, on August 1st, gives promise of being a remarkably successful affair. The buildings erected for the occasion are on a magnificent scale, and are now complete and the space being occupied by exhibits. A letter from the general manager states that the applications for space already filed insure an exposition so complete as to satisfy the most exacting, and every day is adding so largely to the list that the question of space is a serious problem. This, then, gives promise that the Louisville exposition will equal if not surpass anything of the kind heretofore seen in this country; that the products of our fields and our mines, our work shops and manufacturing, from ocean to ocean, will be aggregated in that magnificent series of buildings, and that hundreds of thousands of people from at home and abroad will be there to see it.

DEATH OF DR. JOHN A. WARDER.

The telegraph informs us of the death of Dr. John A. Warder, of North Bend, Ind., on the 14th inst., in the 72nd year of his age. His malady was paralysis. Dr. Warder was widely known for his labors in behalf of horticulture, in its widest signification. For half a century he has been devoted, heart and soul, to the advancement of the horticultural interest of the West, and we might say of the nation. No horticultural, pomological or forestry convention was complete without his presence. He was considered the highest authority, and his power of observation had been so close, his memory so exact, his opportunities and travels so extended that his knowledge was almost complete, and yet, to the day of his death, he was a close observer and a constant student. It was only a year or two ago that we took quite a lengthy railroad ride with him, and he was constantly looking out of the window watching, with the greatest interest, the various species and varieties of trees, shrubs, plants and flowers which we were passing. His conversation in regard to them was full of interest to us, and we hoped he might be spared many years yet to impart the knowledge he was daily acquiring.

The subject in which he took greatest interest of late years was that of forestry, and he never tired of talking of its importance to the nation. He said this generation did not appreciate its importance, but the next generation will.

Dr. Warder was the author of a number of valuable treatises, and of essays, addresses, etc., almost without number. His treatise on Pomology was considered standard authority. His book on "Evergreens had a large sale. All of his writings gave evidence of the highest scientific knowledge. He wrote with great care, being very cautious not to mislead. Everybody who knew him was his friend. He was the most unselfish man we ever knew, always forgetting self and working for the good of the public. He was exceedingly kind to the young, giving them aid and encouragement wherever he could, and they became his devoted friends. The friends of horticulture will everywhere mourn his death. They have lost a friend, adviser and instructor. A great philanthropist has gone to his rest.

"SOFT AND SANDY."

EDITOR OF THE RURAL WORLD: In a late issue of your paper I noticed the following:

"The Arkansas fruit-growers are manifesting in various ways their dissatisfaction with the St. Louis commission merchants. In fact, some of them have gone far enough to announce in print, in a St. Louis paper, that the St. Louis merchants have formed a combination to fleece them to enrich themselves at the expense of the shipper. The shippers, or at least a large portion of them, regard the commission of ten per cent, too high and think the receivers ought to do well at 5 per cent." I do not quote the balance of your article, for, in the most part of it, I am in full accord, but have quoted the above for the purpose of correcting your misunderstanding of the matter at issue between the shippers and of fruit-growers of Beebe, and the commission merchants of St. Louis.

That you may be fully apprised of my means of information, I beg leave to say, that I am the corresponding secretary of the fruit-growers' association of White county, Arkansas, and have seen and read a large number of the returns made of sales of fruits by the commission merchants of St. Louis, Kansas City, Omaha, Des Moines, Chicago, Bloomington, Denver, and other points to which members of the association have made shipments, and when I assert anything as a fact, I do it on the record, and when I express an opinion let it be taken as an opinion for what it is worth—nothing more.

First, then, I desire to say that you are entirely wrong in asserting that "the shippers regard the commission of ten per cent as too high." I have attended all of the meetings of the association and never heard a word of dissatisfaction expressed on account of the commission charges. The dissatisfaction arises from the low prices obtained in St. Louis, compared with other points, and from the fact that the commission merchants did ship to points beyond and obtained an advance of from 50 to 100 per cent above that reported to the shipper and grower of the fruit.

From this fact, and the fact of the almost uniform price reported, for all fruits received in good order, the shippers became satisfied that there was a combination, or understanding as to what the price should be for each day, and that the price was fixed low enough to give the commission merchant a good big per cent, on shipments.

That such was the case the following facts tend to establish.

First one of our fruit-growers divided his shipment between St. Louis and Kansas City—berries picked from same patch, by same pickers and shipped same day. The sales reported from St. Louis were \$3.00 per case, from Kansas City \$5.50 per case. On the same day, and arriving at Kansas City at the same time, were berries re-shipped from St. Louis. Now, the shipper here inquires, "if my berries were shipped from St. Louis at \$3.00 per case, how is it that those shipped by me into Kansas City sell for \$5.50 per case? Would not the fact that the same quality of berries could be bought for \$3.00 per case, prevent me from obtaining \$5.50 per case?" And I ask, do not such facts tend to prove, that the commission merchant at St. Louis did charge and obtain an advance upon the price reported to the fruit-grower and shipper?

I have several cases of this kind which will be reported in due time.

No one doubts the right of the commission merchant if he assumes the risk in-

cident to re-shipment, that he should receive pay for such risk, but it is a question, if by combination, or otherwise, he makes the price in St. Louis \$3, whether he is entitled to the whole of the \$2.50 advance obtained at Kansas City; but when the berries reported "soft and sandy" in St. Louis arrive at Kansas City and at other points in "good order," we of Beebe, who are new in the business, are at a loss to conjecture how, or by what process the berries were hardened and divested of their sand in their transit from St. Louis to other points from one to two hundred miles beyond. If it be a fact, which the returns show, that berries are hardened and cleaned in their transit beyond St. Louis, would it not be well for the Arkansas producers, who are new in the business, to take counsel from what they know, and ship to points beyond St. Louis, until they have learned "from older and wiser heads" how to secure justice from St. Louis commission men?

Having said this much, in relation to your editorial, I beg to say a few words in reply to the statements of Mr. P. M. Kiely, to be found in the Post-Dispatch of the 12th inst. Mr. Kiely starts out with the assertion that "there is not a particle of truth in the statement of that Arkansas man, whoever he may be." I will imagine if he realizes the extent of his assertion? How does he know whether the fruit growers of Arkansas will give St. Louis the go-by or not? Is he prepared to say that no part of the fruit grown in White county goes to points beyond St. Louis? Does he know from intuition, or otherwise, that the shippers of Beebe do not entertain the belief that the commission merchants have adopted a plan by which they sell mostly all to themselves at a low figure and reship to more distant points at an advance of from 50 to 100 per cent? Does he know that the identical berries reported "soft and sandy" in St. Louis were re-shipped to other points and arrived in "good order"? Does he know that a lot of the same berries, picked on the same day and shipped in two lots, were not reported "soft and sandy" by one commission merchant, and sold for \$1.50 per case, and the other lot was reported "in good order" and sold for \$3.50 by another commission merchant? If he knows all these things, how does he know them; and if he does not know them, by what evidence does he brand my statement as being without a particle of truth? So much for Mr. Kiely. I may review his statements at another time.

As to that "member of the commission house of Gerber & Signaigo," who expressed himself in very decided language as to my statements, I have to say, that from close observation of men for more than forty years, I have learned that a man habitually addicted to any fault, is most certain to think he discovers the same fault in others upon first introduction—no wonder he supposed I was drunk when I made my statement to the Post-Dispatch.

In conclusion, Mr. Editor, I desire to say, if you will look over the market reports, you will find that from thirteen to seventeen days of each season, the strawberries from Arkansas command the highest price. Then comes the berries from Missouri and southern Illinois. By this time berries have become plenty and the price has become regulated, hence these late shippers find no reason to complain, but the Arkansas man who ships early, when prices are up, does not like to be reduced so early in the season to the late shipping prices. Our first shipment of berries in 1882 brought \$16.50 per case. In 1883 our first shipment brought \$13 per case. Neither is it fair to institute a comparison of quality between our late shipping berries and the best and earliest shipped from Cobden, Ill. The cream of our berries is gone before the Cobden berries come in, hence our poorest berries have to compete with the best from Cobden.

I will add that our growers, notwithstanding their newness in the business, are as capable of discerning a grain of sand as most other persons, the commission men of St. Louis not excepted. And while in the very nature of things, a lot of their berries cannot be first-class and shipped in good order, they have sense enough not to expect the highest market price for them; but it is when berries shipped and arriving in good order in St. Louis are reported "soft and sandy" that they kick.

Perhaps the St. Louis merchants have coined the words "soft and sandy" from somebody's report that this is a sandy soil; but I will say to them that the soil at Beebe is sandy, it is more of a clay than sandy soil; but at the same time as good a soil for raising most varieties of strawberries to be found in Arkansas or elsewhere.

A FRUIT GROWER.

Beebe, Ark., July 17th, 1883.

The Cattle Yard.

Coming Sales.

July 23.—The Hamiltons, Lexington, Ky.
July 24.—Estill and Hamilton, Lexington, Ky.
July 25.—J. V. Grigsby and Robinson Bros., Winchester, Ky.
July 26.—B. A. and J. T. Tracy, and W. D. Thompson, Winchester, Ky.
July 27.—Col. Wm. M. Irvine, Richmond, Ky.
Oct. 17.—Will R. King, Marshall, Mo.
Oct. 24.—Thos. Bates, Higginsville, Mo.

Next Week's Kentucky Shorthorn Sales.

Again we direct the attention of RURAL WORLD readers to the important series of sales, advertised in our last and previous issues, to come off in the blue grass counties of Kentucky, commencing on Monday, 23rd inst., and continuing until Friday the 27th, and so arranged that all may be followed on consecutive days without having far to travel, and without the least inconvenience. They are arranged to come off and succeed each other in the following order:

J. C. & George Hamilton, sale at Lexington, Monday, July 23.
Hamilton & Estill, sale at Lexington, Tuesday, July 24.
J. V. Grigsby and Robinson Bros., sale at Winchester, Wednesday, July 25.
B. A. & J. T. Tracy, sale at Winchester, Thursday, July 26.
W. M. Irvine, sale at Richmond, Friday, July 27.

We last week made additional reference

to the Grigsby-Robinson, and Tracy Bros. sales, and now have to do the same for the remaining three.

THE MESSRS. HAMILTON.

These gentlemen are two of the largest breeders in Kentucky, having generally a herd of from five to six hundred head, among which are many of the best bred breeding animals in the country.

The Flat Creek farm, located about four miles from Mount Sterling, embraces about 3,000 acres of magnificent land, of which by far the largest portion is in permanent pasture. Like most of the land in the blue grass country, it is beautifully undulating, covered here and there with an abundance of forest trees, and plentifully supplied with running streams of clear, cool, and refreshing water, of which one of the chief is Flat Creek, from which the farm and herd take their name.

Here the Hamiltons have lived since long before the war, and during those many years have built up the greatest herd of shorthorn cattle to be found either in the eastern or western hemisphere. It is from this and their numerous subsidiary herds that sales of hundreds of animals have been semi-annually made for years past at Kansas City, Mo., Chicago, Council Bluffs, Kentucky, and elsewhere; and it is safe to say that more animals from their sales are distributed over the West than from any half-dozen others.

One of the principal features of their herd of to-day is its exceeding high quality. Of Bates blood they have very many exceptionally well bred animals, both male and female, as the Kirkelevings, Places, Constances, Alexander Miss Wileys, Josephines, Gentle Annie Phylisses and Flat Creek Marys. The high estimate set upon some of their families may be gathered from the prices paid for two heifers at the late sale at Chicago when one sold for \$4,025, and another at \$4,000, and their Marys and Phylisses have always commanded very high prices whenever offered for sale.

They will on the 23rd July, the opening day of the series, sell 50 head. This will be at Lexington, and we have no doubt will be a desirable lot of cattle.

ESTILL AND HAMILTON.

On the next day, and at the same place, this firm composed of Major Robert C. Estill, L. A. and Hamilton, both of whose farms are within a few miles of Lexington, will offer about 60 head from the following families:

Renick, Bates of Sharon, Flat Creek Marys, Josephines, Gentle Annie Phylisses, Goodnesses, &c. These cattle are the get of the Bates and Rose of Sharon bulls 4th Duke of Geneva, Grand Duke of Geneva, Barrington Duke, Barrington Duke 3d, 14th Duke of Sharon, Duke Ranock and 3d Duke of Flat Creek, and embrace the entire partnership herd. These cattle are young, healthy, regular breeders, mostly red and good individuals.

Major Estill is perhaps not so well known to our readers as his partner, Archie Hamilton, but he is a man of the highest reputation and the very best character. He comes from one of the best families in Kentucky, inherits a splendid farm of over a thousand acres, about five miles from Lexington, and is foremost in every good work in Fayette county.

A. L. Hamilton is known to everybody as the active, energetic manager of the business of the Hamiltons, wherever they have had sales, whether at home or abroad; a man of unbounded vim, splendid business capacity, and one of the most enterprising men in the shorthorn business. No man in the business in this country is so well known, or that will command a larger attendance at the sale. In keeping with all the Kentucky breeders, he will welcome to his State and to all the sales bidders from a distance, and will aim to make his trip not only pleasant, but in a business sense profitable, and in every respect agreeable. These men always welcome to their home strangers from a distance with the heartiest hospitality, hence the expense of the trip needs be but trifling. On Friday, the last day of the sales

COL. WM. M. IRVINE

will offer at Richmond his entire herd of 54 animals, Mazurkas, Young Marys, Georgians, Mason Victorias, Tins, Lady Carolines by Newtonian, White Roses by Publicola, Cleopatras, &c. His herd has all been bred by himself, reared in the open fields summer and winter, and in most instances he has bred his dams and grand-dams. If not sold privately before, he will sell 50 head of highly bred Southdown sheep, also two blue-grass farms, one 200 acre tract, the other 300 acres.

For catalogues address each at their respective postoffices, Lexington, Winchester and Richmond are all connected by railroads.

Saline County Shorthorn Breeders' Association.

On Friday of last week as per previous announcement, twenty-five of the prominent breeders of Saline county, Missouri, met in the office of Mayor Col. W. R. Gist in the city of Marshall to complete the organization of a county association having for its object the promotion of their individual and collective interests, by concert of action and mutual effort.

Such associations have been formed in many counties in this and other states and have generally, when well managed, inured to the benefit of those concerned; and there is no reason to suppose the contrary will be the case in an old and well settled community like that under consideration, for the farmers have been in the business long enough to have good sized herds and to learn the necessity of co-operation when their interests are involved.

A great portion of the county is under grass and much of the remainder in a high state of cultivation, producing from fifty to seventy-five bushels of corn to the acre; hence its capacity for feeding is unsurpassed, and immense droves of western and domestic cattle are annually finished on its magnificent pastures and thence shipped to market.

There is no better evidence of quality of soil than its capacity to produce blue grass and timothy, corn and wheat, tobacco and hemp and, these are grown luxuriantly in Saline and have been for fifty years; hence the farmers are wealthy and surrounded by all that ample means usually represent, viz: educational facilities, refined social surroundings, churches, society, fine horses, good drives handsome ladies, brilliant equipages and stores full of the finest goods.

The county measures 42 miles from east to west and 35 from north to south, forms a promontory or bend in the Missouri river on which it has a frontage north and east of from 80 to 90 miles.

The Chicago and Alton railroad runs through it from east to west, touching Marshall, the county seat, and the Lexington and Sedalia branch of the Missouri Pacific through the southwest west corner, touching Brownsville, the next largest town. The shipping facilities, therefore, are ample, both by rail and river.

Marshall, the county seat, is a flourishing city of about five thousand inhabitants, and will in the near future take its rank as a city of the third class. Just now, a new and elegant court house to take the place of one destroyed by fire, is approaching completion, and will, when finished, cost in the neighborhood of \$75,000. Gas works are now in course of erection, and water works under contemplation.

Before the war, the county was largely devoted to the cultivation of hemp and tobacco, for both of which the soil is pre-eminently adapted, especially the latter, of which it produces, we were informed, a finer leaf than can be grown either in Kentucky or Virginia, hence it forms one of the principal industries of the county. Blue grass is indigenous to the soil, and grows most luxuriantly all over the county, affording abundant pasturage for the numerous herds of cattle distributed over the county, and with all these resources in the hands of the people, surely they have the best prospects for building up the finest stock business of any in the State.

THE MEETING.

At the meeting were the following gentlemen: N. J. Smith, J. A. Hawkins, G. R. McDaniell, Judge Robert Smith, J. D. Snelling, J. F. Burris, A. C. Garrett, Mark Whittaker, P. G. Rea, R. K. Thompson, O. J. Ralph, J. T. Roads, Wm. J. Garrett, Peter Sheer, P. C. Storts, Geo. G. Hawkins, R. B. Thorpe, F. M. Kidd, T. C. Rainey, Will R. King, J. C. Spappington, Dr. Abram Neff, R. E. Richard, W. P. Davidson and Judge J. W. Sparks.

The meeting was a most cordial and harmonious one, and after adopting a constitution and by-laws, elected Will R. King, President; R. E. Richard, Vice President, and T. C. Rainey Secretary and Treasurer. Every one present subscribed to the constitution and by-laws and paid their annual dues.

To Will R. King, the well known shorthorn breeder of Peabody near Marshall, the enterprising president, to J. C. Rainey, the ever pushing and energetic secretary and treasurer, to Dr. Abram Neff of Arrowrock and R. E. Richard, much of the success of the association is attributable.

At the meeting it was ascertained that about two-thirds of the breeders of the county were present, and that fully 500 head of registered stock was already owned in the county. Many of the facts and figures here given were obtained from Col. W. R. Gist, mayor of the city, a very energetic and intelligent gentleman, an attorney by profession, a Virginian by birth, and a high-toned and representative man, worthy of the high position to which the citizens have called him. Now Saline county has set the example, which shall we hear from next?

Bothwell to Jewett.

COL. COLMAN: What ails Jewett? Does he imbibes too freely, or does he have bad spells, in which he has no regard for his word, or does he find no sale for the tin tags he brought from Vermont? Something is wrong, 20 cents for wool brings the wool growers down to business; they are now trying rams on their merit. They have tried those paper rams at big prices, to their sorrow. Large, strong-boned Missouri-raised rams, when they are just as pure blood, suit them better. As for the barren ram McQuitty sold my son, he worked well, but got no lambs; I have been trying since last December to get McQuitty to take the ram back at cost, \$75. The best he ever offered was \$40 for him. He would be cheap at \$100 if he got stock. He was but 3 years old and sheared 31 lbs. at Sedalia—the heaviest fleece except one at the shearing. Some six weeks since, I wrote Mr. McQuitty that if he would pay me \$70, I would return the ram. He gave no answer till he found a law suit was inevitable, then, June 27th, he accepted my offer. I was credibly informed that Mr. Jewett advised Mr. McQuitty to sell the ram to the lad, while it was understood by the sheep men on the ground that the reason why about the best ram at the shearing sold so low was that he was not sure, and Jewett shipped the ram to me from his farm. If Mr. Jewett wants more evidence I can give it. Col. I have never opposed a horse or cattle register; neither would I oppose a sheep register if I believed it had been properly started and conducted; but when merit is left entirely out of sight and only certain families of doubtful reputation taken in, even when some of those had been miserably neglected for years in their breeding, then I object. The sheep register is like the bankrupt law, good if every one was honest. It is too easy a matter to deceive, with it all kinds of tricks can be practiced. If a registered sheep dies the tag is easily removed to another sheep. It has been claimed that this has been done, and who the wiser but the man that owns the flock? No man values line breeding higher than I do, no man is more careful to breed from the best dam and sire, but it takes something more than a tin tag in the ear and smooth talk to select breeding stock for me. The register men boasted that the register had raised the value of their sheep greatly, while it had lowered the market value of those not registered, even if equally as good. But the light that has been poured on this subject, through the RURAL and other papers, has changed matters greatly. Sheep are now selling on their merits, as in days of old. I, last fall, paid McFadden \$175 for a ram not registered; he is cheap; could have bought registered rams from \$15 to \$18 by the car-load in Vermont.

Colonel, I will tell you what ails Jewett. In the first place, Breckenridge beat Sedalia, bad, in shearing rams last spring. Sedalia had but two rams that cut more than 25 lbs. Breckenridge had seven that went from 25 to 33 1-4. It is true, they had one barren ewe that sheared 26 1-4 lbs, and her fleece scored 6 lbs. I fall to see the sense in this 20 lbs of grease and dirt in one ewe's fleece. Another thing huns Jewett—Bothwell's

60 ewe-lambs and 60 ram-lambs that can beat his lambs shearing next spring. One more point, that hurts bad—Bothwell's ram Bonanza beat Stubbs badly shearing, and can beat him next spring, at public shearing. O, I believe Stubbs is always sheared at home.

J. B. BOTHWELL.

P. S.—Since writing the above I have a letter from Mr. McQuitty, stating he would not swear that the ram ever got any lambs. Do men buy rams at \$125 and keep them two years and not know whether they breed or not?

Attention is called to the advertisement in this issue of the great sale of Shorthorn cattle to be held at Dexter Park, Chicago, Ill., Aug. 16th, under the auspices of Col. J. W. Judy, the well known auctioneer.

Notes—Correspondence.

—The first lot of new wheat was received to-day, and was sold at eighty cents. We are having lots of rain—D. J. McM., Watkins Mo.

—Another new Ohio enterprise booming. The Newark Machine Company have completed their new brick factory and are working 200 men in the building of their Celebrated Victor Clover Hullers, Grain Drills, Hay Rakes, Fanning Mills, etc.

—Ex-Surgeon-General Hammond is so grapple with the Woman Question in the next number of the *North American Review*. He will undertake to show that woman is unfitted for equal participation with men in public affairs not only by her smaller brain capacity, but also by the peculiarities of her nervous organization.

—I am a subscriber to your valuable paper, and consider it the best I ever saw. It makes the heart glad every week. We have a tolerably good apple crop, but no peaches or pears. The white winter Pearmain trees are heavily loaded with fruit. I have tried all summer to get me a budding knife, but in vain, can you direct me?—H. T. Rosendale, Mo. Write the Michel Plant and Seed Co., St. Louis, or the Plant Seed Co., St. Louis.

—Can you inform me where I can purchase a Southdown ram? I see none advertised in the RURAL WORLD. Wheat only half a crop in Franklin County; grass and oats good; corn promising a good crop. Fruit with us is a failure, peaches are all wrong, Apples June all rotted on the trees.—W. M., Union, Mo. Address Samuel E. Prather, Springfield, Ill., on the ram question.

—Builders, or parties contemplating building, desiring mantels, grates, summer pieces, Fire-proof safes, mixed paints, etc., (if they mention this paper,) can obtain a book of designs and full particulars by writing or calling on N. Y. Slate Roofing Co., 127 Church St., Phila., Pa. These goods are of their own manufacture; and the best as well as the lowest priced in the market, are for sale in all cities. Why not write at once for an estimate?

—There is a party of immigrants in this country that are coming West in the fall, and they talk of going to Kansas, where they can get Government land free. I told them there is as good land in Missouri as there is in the West. Let me know what counties in Missouri a person can get it and on what terms. Do you give so much to the head of every family; and what to boys and girls? I think, by a little encouragement, there will be no trouble to get 50 or 100 men, with their families. Let me know as soon as possible about it, as they speak very favorably of your State.—Alex. H. K., Elkton Va. Address Government Land Agent, Boonville, Mo., or Springfield, Mo.

—I am a new subscriber to your valuable paper and like it; it suits me, is full of information and every number up to par. I wish to ascertain how to put up cucumbers by the barrel, also how to turn cider into vinegar. Have a number of barrels now out in the sun, but it does not turn to vinegar; have also some wine in the same fix. I want to have the vinegar as pure as possible for pickles for I have about an acre growing.—M. R., Chapin, Ill. See page six of this paper for putting up pickles. For a good cider vinegar, to three gallons of pure cider add one gallon of soft water, well sweetened with molasses, and expose to the sun or warm air till the acetic fermentation is nearly complete, then remove to a cool dry apartment. The cask should always be left uncorked.

—Can any of your readers tell me what the matter with the pigs. They get stupid and seem to have the thumps and finally die. They are generally affected the worst just before time to wean them. What can I do for them?—T. B. Lindbeck,....., Ill. It is impossible to diagnose the disease from the above statement. We have no knowledge of their conditions or surroundings. One good step to take would be to change their location and feed at once, and to give them a mixture composed of sulphur, salt and wood ashes, say one pound of the former to two each of the latter. Let them have an abundance of pasture, or if confined, green food. Keep them off low, wet land or lots, let them have none but pure water and good shelter.

Summer Cooking Stoves.

Gasoline, as a fuel for cooking, has become a settled fact. It is cheaper than coal or wood, and the amount of labor saved to the housewife is almost beyond belief. No one can realize the comfort and convenience of a gasoline stove, until he has tried Whorff's Patent Perfect Baking Oven. This oven has been recently invented and patented by Charles F. Whorff, 1014 Washington Ave., St. Louis. It is the most perfect oven in use. It surpasses any stove even in the perfect work it does, and does it quicker, with less attention. This oven will do what no other oven can do; namely, brown equally top and bottom. The reason of this is that the mechanism of this oven is so arranged that the heat is supplied equally to the top and bottom of the food being cooked. The principle involved and carried out in this oven, has never been applied to any other oven, and the result of this principle is a perfect baking oven.

We speak from experience with this oven, and feel safe in saying if any one wants to have perfectly baked food, or roast meat, get this oven. Mr. Whorff informs us that the demand is increasing very rapidly and the trade is taking hold of it and supplying their customers who will not be satisfied with any other. It now is a fact with gasoline as a fuel and the Whorff's patent oven the days of drudgery in the kitchen are largely done away with. This oven can be applied to almost all of the gasoline stoves. Those wanting further information should address or call upon Charles F. Whorff, 1014 Washington Ave., St. Louis, Mo.

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—Farming has been an up hill business this season. In the first place the spring was backward, in the second place too much rain and consequently too many weeds. Corn especially got a poor start. June 1st it looked miserably, grass fine; but the industrious farmer went to work with a determination to conquer and, am happy to say, has succeeded. Corn is looking very well now with thirty farmers, but those less energetic have failed. Their crops are in a sad plight. Sweet potatoes are doing poorly, Irish are doing well and other garden sals, and out. There seems to be quite a lot of early apples though not a full crop; the caterpillar or canker worm did considerable damage to apples in this neighborhood. We have quite a sprinkling of peaches, a good many have already gone to market and have brought fair prices. The tomato crop is good though somewhat later than last year. Blackberries, wild, plenty; cultivated, neglected. Clover and grass very good, not all cut yet. Work hands scarce, we have none to spare. Sorghum not much planted, looks poor, too much grass.—Uncle John, Southern Illinois.

The Horseman.

How Trotters are Bred.

Good judges believe that the chestnut gelding Edwin Thorne stands a better chance of placing a low record to his credit this season than any other trotter upon the turf, excepting St. Julien, whose record is already 2:11½, while that of Thorne's is 2:16½, yet by those who know him best he is rated capable of trotting a mile in 2:12. Edwin Thorne was foaled in 1873, and got by Thorneville, his dam being by Ashland, a son of Mambrino Chief. Thorneville was by Alexander's Abdallah, out of Dolly, by Mambrino Chief, thus giving Edwin Thorne two close crosses of such trotting blood as produced a Lady Thorne (2:18½), which in her day was the fastest trotter upon the turf. His sire, Thorneville, has a record of 2:23½. Alexander's Abdallah, Thorneville's sire, had the most remarkable power of imparting speed and speed-producing qualities to his offspring of any stallion that ever lived. He was got by Rysdyk's Hambletonian when that noted sire of trotters was only two years old. His dam is now supposed to have been by a son of Andrew Jackson, which makes his breeding almost identical with that of Geo. Wilkes, both being by the same sire, while the dams of both were granddaughters of old Andrew Jackson, the fastest trotting stallion of his day. He was foaled in 1852, and died in 1863, hence his opportunities in the stud were very limited; yet he got several fast trotters, including Goldsmith Maid, a trotter, which, in her prime, beat everything that was pitted against her, not excepting Time itself, closing her brilliant trotting career with a record of 2:14, and winning of 322 heats in 2:30 or better, although many publishers are now stating it 2:2, thus robbing her of ninety hard-fought victories, or more than one-fourth of the credit to which she is justly entitled.

Seven of the sons of Alexander's Abdallah have produced trotters with records of 2:30 or better, and six of the seven have contributed representatives to the 2:30 list, a number and proportion which has never been equalled by any other trotting sire. These six sons are credited with eleven trotters that have won in 2:30 or better, viz.: Almont three, the best with a record of 2:17½; Belmont two, the best 2:18½; Wood's Hambletonian one, 2:20; Jim Monroe two, the best 2:18½; Thorneville two, the best 2:18½, and Major Edsall one, 2:18. The dams of four of these seven sons, which have produced 2:30 trotters, were by Mambrino Chief, while the dams of the other three fastest trotters got by these sons were also descendants of Mambrino Chief.

Rysdyk's Hambletonian and Mambrino Chief were descendants of Mambrino, son of imported Messenger, Hambletonian being by Abdallah, son of Mambrino Paymaster, another son of Mambrino, hence, crossing the Hambletonians with the Mambrino Chief, unites two separate strains of Messenger blood. This method of in-breeding has been practised in England for a long time, and has proved remarkably successful in the production of speed at the running gait. The English writer, J. H. Walsh, better known as "Stoichegner," in his excellent work on the horse, speaking of breeding, states that "the horses which have been the most remarkable of late years as stallions were considerably inbred." In another place he remarks that "a hit in breeding is understood to mean an instance of success, but though it often occurs, the reason for it is not always very clear. My own belief is that it generally results as I have laid down in the 16th axiom, from the reunion of lines which have been often kept separate for several generations."

In the 11th axiom he states that breeding "in-and-in" prevails extensively in a state of nature with all gregarious animals, such as the horse, hence it is reasonable to conclude that breeding "in-and-in" is not prejudicial if not carried farther by art than nature teaches. In nature we find that about two consecutive crosses of the same blood is the usual extent to which it is carried, as that is the limit of the life of the animal. "Once in-and-in" is the rule for breeding given by Mr. Smith in his work on breeding for the turf, but twice in life he found to be more in accordance of the most successful early English breeders." Axiom 16th to which he refers is that "when some of the elements or blood lines of which an individual sire is composed are in accordance with others making up those of the dam, they coalesce in such a kindred way as to make what is called a 'hit.'" If farmers who are breeding a few colts every year will bear these facts in mind, and carefully trace the breeding of their mares, then take them to the best stallion that they can find whose breeding has been established, and which is known to possess some of the best sire blood found in the mare, their chances of producing an animal of superior excellence will be greatly increased. Goldsmith Maid, the most wonderful enduring trotter that has ever been produced, is an example of this method of breeding, her dam being a daughter of old Abdallah, while her sire was a grandson of the same horse. Clingstone (2:14) is another example, his sire, Rysdyk, being a son of Rysdyk's Hambletonian, while his dam Gretchen was by Choroos another son of Hambletonian.

Inbreeding has been very successfully practised with the descendants of Vermont Black Hawk. A very observing horseman, who has not only carefully studied the breeding problem but has had excellent success in breeding, lately remarked that he "hardly thought there was another family where inbreeding has produced such grand results as among the descendants of Black Hawk." Solomon W. Jewett, a breeder of large and successful experience, stated several years since that "he bred a Black Hawk mare at three years of age to his sire with marked success, also with repetitions. One of her first-three-quarters Black Hawk—was early settled at Medina, N. Y., and afterwards taken to Whitewater, Wis.

When four years old, this horse, known as Black Flying Cloud, measured fully 16½ hands in height, and weighed 1100 pounds, although his sire weighed but about 950. A sister of Black Flying Cloud, weighing over 1000 pounds, was bred back to her sire when four years of age, and produced a colt seven-eighths Black Hawk, which was sold to Charles B. Clark of Boston. This colt with its dam was at the United States Agricultural Exposition held in Boston in 1855. When about eight months old the colt was sold for \$1400. Nearly all of Daniel Lambert's best trotters were out of Black Hawk mares, and his sons which are proving most successful in the stud are bred from dams of the same strain. H. B. Winslip, one of the sensational trotters of the season, is by Aristos, a son of Lambert, his (Winslip's) dam being by Col. Moulton, another of Lambert's sons, while the dams of both Aristos and Col. Moulton trace directly back to old Vermont Black Hawk.—Am. Cultivator.

"Veritas," in the *Spirit of the Times*, says: "I am not old enough to sit down with the veteran horsemen and sagely wag my head in deploring the methods of the present day as compared with the past, and I feel sure the breeding, management and training of trotters is more thoroughly understood now than then, yet I am inclined to believe there is a dangerous practice creeping into the system of some trainers, which calls for a word of caution. I refer to frequent very fast trials against the watch. Now, the modern rabbits in trotting science, Mace, Hickock, Turner, etc., are not given to watch-breaking for fun; but look at the killing trials others make, and feel they will have easy victories over their chargers ere the close of the season. From the days of Elora Temple, there is probably no instance of a first-rate performer long on the turf, being asked to do his best in exercise. I remember Jim McMann used to say he never knew how fast Pocahontas could pace, and declared he never exercised Elora Temple anything like as fast as she could go, except on one occasion. Nobody ever heard of Budd Goldie 'splitting' Dexter from end to end of a mile to amuse his friends, and during Goldsmith Maid's long dynasty she was 'only wanted for the brass.' The mighty one-eyed mare, Lady Thorne, was never trotted for glory, but achieved her laurels in races save her great secret trial, which has never been beaten in public or private. Who ever heard of Mace driving hopeful in 2:14½, or Darby in 2:16½, in their work? During the year farus was on every lip, Splan did not set the trotting touts crazy by wonderful morning trials, and Hickock rarely showed Lucy's capacity, even in her friendly rivalry with the Maid. He has also conducted St. Julien's training with great secrecy, and has husbanded his speed for public honors, records and emoluments."

The *Couch Makers Magazine* endorses the statement that few people are aware they do wagons and carriages more injury by greasing too plentifully than in any other way. A well-made wheel will endure constant wear from ten to twenty-five years, if care is taken to use the right kind and proper amount of grease; but if this matter is not attended to, it will be used up in five or six years. Lard should never be used on a wagon, for it will penetrate the hub, and work its way out around the tenons of the spokes, and spoiling the wheel. Tallow is the best lubricator for wooden axle-trees, and castor oil for iron hubs, but many of the patent axle greases are also excellent and have the merit of being cheaper and more convenient to handle. Just grease enough should be applied to the spindle of a wagon to give it a slight coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the roller back over the axle, and wash into the hub around the outside of the boxes. To oil an iron axle-tree first wipe the spindle clean with a cloth wet with spirits of turpentine, and then apply a few drops of castor oil near the shoulder and end. One teaspoonful is sufficient for the whole.

CHAFF.

Wise's Axle Grease takes the place of lard oil on reaper cans and rollers.

Twice as many men as women die of pneumonia.

Mrs. C. L. White, St. Louis, Mo., says: "I have found Brown's Iron Bitters to be a good remedy for general debility."

The law forbidding Jews to have Christian servants is revived in the government of Kiev.

Dr. Benson's Celery and Chamomile Pills contain no opium, quinine, or other harmful drug and are highly recommended for headache, neuralgia and nervousness. 50 cents, at druggists.

A beautiful Boston girl has crossed to Europe in the steerage of a Cunard liner, just to see how it was.

The care, precision, neatness and perfection exhibited by the very appearance of Simmons Liver Regulator proves that it is the best prepared medicine in the market, fully carrying out the motto: "Purissima et Optima" (purest and best).

It is asserted that British capital to the extent of \$30,000,000 went into Texas and Wyoming last year.

Hall's Vegetable Sicilian Hair Renewer never fails in restoring gray hair to its youthful color, lustre, and vitality. Dr. A. C. Hayes, State Assayer of Massachusetts, endorses it, and all who give it a fair trial will find in grateful testimony to its many virtues.

For an example of pure and unalloyed contempt, take a barber's opinion of a man who is growing a full beard.

Nine girls living in Vermont have organized a base ball club and play on the village green every Wednesday and Saturday afternoon.

One's first duty is to use every precaution to avoid disease, but when it overtakes a person it is then a binding duty to employ the best remedies to effect a prompt cure, such as may be found in the celebrated Home Sanative cordial which is pleasant to the taste and adapted to all constitutions.

The deepest running stream that is known is the Niagara river, just under the suspension bridge, where it is seven hundred feet deep by actual measurement.

It is not necessary to enter into particulars in reference to the complicated organic and functional difficulties to which the more delicate classes of American women are subject; but we take pleasure in saying that Mrs. Lydia E. Pinkham's Great Remedy for all these troubles has an unbounded popularity.

It is said that the natural beauties of Yellowstone Park are being defaced and destroyed by visitors. This comes of driving away the Indians, who were in the habit of scalping tourists.

Silver Creek, N. Y., Feb. 6, 1880. Gents—I have been very low, and have tried every remedy to no advantage. I heard your Hop Bitters recommended by so many, I concluded to give them a trial. I did, and now am

around, and constantly improving, and am nearly as strong as ever. W. H. Weiler.

Tomatoes, not many generations ago, were known as love apples, and considered poisonous. Last fall there were 32,322,052 cans of tomatoes put up by the canning establishments of the United States.

Startling Weakness, General and Nervous Debility, Impaired Memory, Lack of Self-confidence, Premature Loss of Manly Vigor and Powers, are common results of excessive indulgence or youthful indiscretions and pernicious solitary practices. Victims whose manhood has thus been wrecked by self-abuse should address with three letter stamps, for large illustrated treatise giving means of perfect cure, World's Dispensary Medical Association, Buffalo, N. Y.

Frank James says he never killed a man unless he felt that it was necessary. And he never felt that it was necessary unless the man demurred at the very reasonable request to give up his money, watch, and other valuables. Highwaymen are lied about as well as the rest of us.

Samuel Howard of Mount Sterling, Ky., recently chopped down a big black locust tree in the hollow of which grew another tree of a different kind which was ten inches in diameter and twenty feet in height. It had grown in perfect darkness, as there was no opening in the locust.

Hot Springs of Arkansas.

Much has been said of this wonderful place, but one can hardly realize what it is without visiting it.

The name, Nature's Wonderland, it well deserves—some of the most wonderful cures having been made by its waters. Rolling out of the mountains in vast quantities, these glorious waters seem to extend a helping hand to all, and invite you to accept of their life-giving qualities. Hot as they are, a more pleasant drink cannot be found, and after having bathed in them one feels much refreshed.

Sent to the undersigned for a copy of illustrated pamphlet lately issued. Same will be mailed free.

F. CHANDLER, H. C. TOWNSEND, Gen. Ticket Agt. Gen. Pass Agt. St. Louis, Mo.

If your horses have sore shoulders, scratches, cuts or open sores of any kind, use Stewart's Healing Powder.

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JAMES W. JUDY, Tallula, Menard county, Ill., at St. Louis, Mo., breeders of Poland in all parts of the country. Reiers to any breeder in the west.

PHIL C. KIDD, Lexington, Ky., live stock auctioneer. Sales promptly attended to in all parts of the country. Correspondence solicited.

L. P. MUIR, Chicago, Ill., live stock auctioneer. Sales made in all parts of the country, at reasonable rates. Correspondence answered.

COL. JOHN SCOTT, Nevada, Iowa, live stock auctioneer. Sales made in all parts of the country, at reasonable rates. Correspondence solicited.

H. B. SCOTT, Sedalia, Mo., breeder of Short Horn Cattle, Poland China Hogs and Cotswood Sheep. Anything in the herd for sale.

J. W. BLAUFORD, Bonaparte, Iowa, breeder of Improved Shippers, Poland China Hogs, China sows of best strains. Correspondence invited. Prices reasonable. Satisfaction guaranteed.

J. BAKER SAPP, Columbia, Mo., breeds J. R. Langer Berkshire sows of the best quality. Imported stock at head of herd. Catalogue and price list free.

JERSEY RED HOGS and Spanish and American Merino Sheep, bred and for sale by J. N. Rozelle, Breckenridge, Mo.

HEREFORD AND ABERDEEN-ANGUS CATTLE—Gudgell & Simpson, importers and breeders, Independence, Mo. An inspection of their herds is invited.

SHORTHORN CATTLE.—J. F. Finley, Breckenridge, Mo., breeder of Shorthorn Cattle and Berkshire sows. Imported Kirklington Lad at head of herd. Stock for sale at all times.

KANSAS SHORTHORN CATTLE—Robert Patton, M. D., Mahan, Kansas, breeder of Shorthorn Cattle of the best families. Stock for sale. Inspection invited.

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ANGUS AND GALLOWAY CATTLE.—W. H. and A. Leonard, Mount Leonard, Mo., importers and breeders of Angus and Galloway cattle and Spanish and native Jacks.

D. W. MCQUITY, breeder of Merino sheep, Berkshire sows and high class poultry, Rockport, Mo., has 400 rams ready for this year's service.

CHARLES E. LEONARD, proprietor Ravenswood herd of Shorthorn Cattle, imported Spanish Jacks and Jennets and Merino Sheep, Bell Air, Cooper Co., Mo., or Princeton, Mo., R. R.

HIGH CLASS BATES CATTLE, bred and sold by M. W. Bates, Independence, Mo. Crazes, Barringtons, Harts, Places Acombs, &c. Kirklevington Duke 2d 32:80 at head of herd.

W. H. & THOS. C. EVANS, Sedalia, Mo., breeders of Short-Horn Cattle, Berkshire Hogs, Bronze Turkeys, Plymouth Rock Chickens and Pekin Ducks.

R. W. GENTRY, Sedalia, Mo., breeds and deals in Thoroughbred Merino Sheep of largest size and best quality. Rams and ewes always for sale at prices as low as the lowest.

C. LIPPITT, Shenandoah, Iowa, breeder of and dealer in American Merino sheep, size, constitution and amount of cleaned wool a specialty. Stock rams for sale.

WILL R. KING, Peabody, Marshall, Saline Co., Mo., breeder of Short-horn cattle and Cotswood sheep. Grand Airline No. 8539, S. H. R. a Benick Rose of Sharon at head of herd. Good stock for sale.

PALMER, Sturgeon, Boone County, Mo., breeder of Short-horn cattle. Stock for sale. Fifth Duke of Acliken (Rose of Sharon) and Commander (pure) Booth at head of herd.

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MERINO SHEEP.—H. V. Pugsley, Plattsburg, Mo., breeder of Merino sheep, 4000 heads at head of flock. Call or write.

R. C. PEW, Prairieville, Pike county, Mo., importer and breeder of Cotswood and Shropshire sheep. Ewes and rams of all ages for sale. Correspondence solicited.

P. S. ALEXANDER, Lone Jack, Mo., importer and breeder of Cotswood sheep. Satisfaction guaranteed. Call or write.

R. T. MCULLY & BRO., Lees Summit, Mo., breeders and importers of thoroughbred Merino sheep of the very best strains. Prices reasonable and satisfaction guaranteed.

J. BELL & SON, Summerville, Texas county, Mo., breeders of pure Spanish Merino sheep. Choice ewes and rams at wholesale and retail.

B. BOTHWELL, Breckenridge, Caldwell county, Mo., breeder of Merino sheep, 1000 selected from. Call or write. Prices reasonable.

JOS. E. MILLER, Ellwood Stock Farm, Belleville, Ill., breeder of Holstein cattle, Shropshire sheep and Yorkshire swine.

CHAS. F. MILLS, Springfield, Ill., importer and breeder of Clydesdale horses, Jersey cattle, Cotswood sheep and Berkshire swine. Purity of blood and reasonable prices guaranteed.

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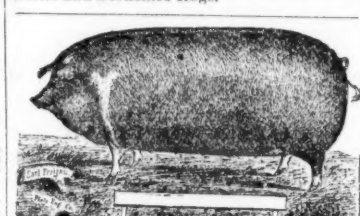
H. V. P. BLOCK, Aberdeen Farm, Pike Co., Mo., breeder of pure and high-bred Percherons by imported Napoleon Bonaparte and Bismarck, Champion Almack Trotters, pure Jerseys, grade Jerseys (milk cows), white Yorkshire and Berkshire pigs. Send for catalogue. Address Prairieville or Louisiana, Mo.

SETH WARD & SON, Westport, Mo., breeders of the best families—Aldrie Duchesses, Fletchers, Barringtons, Kirklevingtons, Wilder, Sloan Duchesses, Hudson Duchesses, Constances, Minus, Hilpus, Burlingtons, Crages, Rose of Sharon, Velutins, Mazankas, Miss Wiley, Barrington Roses, Young Marys, Oxford of Vineyard 3d, 32:427, at head of herd Young stock for sale.

L. W. ASHBY, Locust Grove Herd, Callaway Co., Mo., breeder of Berkshire swine of largest and best quality. Stock for sale. Correspondence solicited.

HERMAN ROESCH, St. Louis, Mo., Bird Fancier and Pet stock Breeder, will buy, sell and exchange High-class Poultry, Pigeons and pet stock. Has for sale: Doves, Rabbits, Guinea-pigs, Ferrets, Maltese cats, Canaries, Mocking-birds. Eggs for hatching from 20 varieties of land and water fowls. Send stamp for price list.

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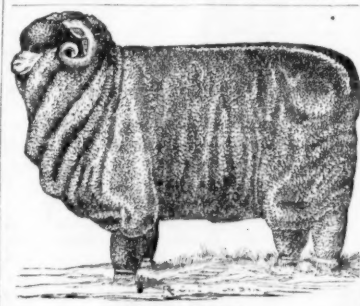


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W. Hite, Berkshire and Poland China Pigs and fine Setter Dogs, Scotch Cattle and Fox Hounds, bred by ALEX. PEOPLES, West Chester, Chester Co., Pa. Send stamp for circular and price list.

PURE BRED YORKSHIRE PIGS. Crossed Yorkshire and Berkshire, and crossed Yorkshire and Chester (the best cross) for sale. Send for prices. J. H. FORESTER, Forester, St. Charles Co., Mo.



STUBBY 440. Samuel Jewett, Independence, Mo., breeder of improved Spanish Merino sheep. Rams for sale.

Stubby 440 bred by me, sire a ram bred by A. Wood, called Vermont Vandyke, dam bred by J. J. Crane. He is of Robinson and Axwood blood. SAMUEL JEWETT, Independence, Mo.

Sheep for Sale.

I have about 150 high-grade Merino ewes, mostly two years old, though some are three and four, with from 15 to 30 lambs in the flock, for sale. Price \$10 each for the ewes, the lambs included. They sheared from 9 to 20 lbs. each this year and averaged 4 lbs. Come and see them.

200 Registered Rams for sale. H. V. PUGSEY, Plattsburg, Mo.

GREAT SALE OF Short Horn Cattle AT DEXTER PARK, CHICAGO, ILL. On Thursday, Aug. 16, 1883.

Me. srs. Pickrell, Thomas & Smith, Harrisburg, Ill.

Authorize me to sell about 65 splendid individuals of such families as Rose of Sharon, Young Mary, Young Phyllis, Pearllette, Cambrina, etc., etc. For catalogue or any particulars address as above.

Col. J. W. JUDY, Auctioneer.

JERSEY CATTLE.

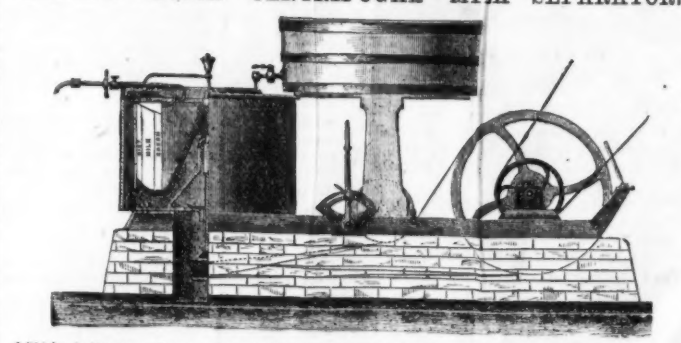
I have one of the largest herds in the country composed of the choicest and best families of Jersey cattle, all registered in the A. J. C. C. Herd Register. Young bulls cheap. Yorkshire pigs. R. L. FOSTER, St. Louis, Mo.

The Standard Red Trotting Stallion, MONITOR (1827) foaled 1877, color black, 16 hands high, he by Merchant (369), he by Alexander (11), dam Trojana by Trojan (312), he by Flying Cloud (154), he by Vt. Black Hawk (5), Flying Cloud's dam by Andrew Jackson (4), Trojan's dam by Abdallah (2), the sire of Rysdyk's Hambletonian (10), stands at the stables of the Colman Nursery Co., on the Olive Street road five miles west of the St. Louis city court house. He is descended from the best trotting families on the side of both sire and dam, and is fast and level-headed. He won a \$2,000 match race when three years old, within sixty days after having his first harness put upon him, over C. L. Hunt's Cash Boy—double distancing him the first heat. Terms, \$25 in advance. Pasture for mares from a distance \$1.50 per week.

J. C. COLMAN, RURAL WORLD Office, 600 Olive St., St. Louis.

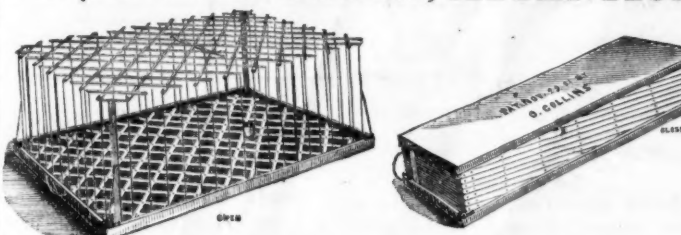
40 Gold and Silver Chamois Cards, 20 2 1/2 lbs. with name 10c. postpaid. G. L. Reed & Co., Nassau, N. Y.

DANISH-WESTON CENTRIFUGAL MILK SEPARATOR.



1,500 in daily use. Separates 1200 lbs. per hour. Works continuously. Gives a gain of 15 per cent. of Butter. PHILADELPHIA CREAMERY SUPPLY CO. (Limited), Philadelphia, Pa.

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COLLINS' PATENT STEEL FOLDING POULTRY COOP.

A much-needed want supplied at last. No more smothered Poultry. Space and weight economized in our perfectly ventilated, clean, durable and attractive coops. One-half the weight and one-fourth the size when folded. They are made entirely of steel (except the floor) and will outlast a dozen wooden coops. We make all styles, to suit the trade. Liberal terms to agents. By way of introduction we will send one of our \$3.25 coops to any address on receipt of \$2.75, wholesale price. Address THE COLLINS MANUFACTURING CO., S. W. Cor. Collins and Middle Sts., St. Louis, Mo. Send for circular and mention this paper.

J. M. WARD Furniture, Stove and Carpet Company, Nos. 1111, 1113 and 1115 Franklin Av., St. Louis.

A MAGNIFICENT STOCK OF Furniture, Carpets, Stoves, Tinware, Baby Carriages, Clothes Wringers, Lamps and Glassware,

Plain and Decorated Toilet Sets, And Everything Needed for Housekeeping.

GOODS SOLD FOR CASH OR ON TIME PAYMENTS AT THE LOWEST BOTTOM PRICES. CALL AND EXAMINE.

Open Every Night Until 9 O'Clock.

THE STANDARD BRED Trotting Stallions

GOODWOOD, by Woodford Mambrino, Rich Hill, Bates Co., Mo.; BAIR (1689), at Pierce City. For further information address L. E. Clement, Pierce City, Mo., or call on M. Ervin, Rich Hill, Mo.

A. J. CHILD & CO., 209 Market Street, ST. LOUIS, - MO.

THE ONLY AUTH

The Home Circle.

TO FANNIE FRONT.

We (a) pensive passed along Sedalia's verge,
From it, we saw a lady quick emerge.
In action, gesture, and the meekest mien,
She was the acme of perfection seen.
"My friend, couldst tell me who might that lady be?"
"The teasing Fanny Frost, you plainly see,
Take my advice, we'll quickly pass her by,
Sedalia's maidens all, she'd 'nice' defy.
But yesterday, to Grandma stily said:
'Of Future Great, the crowning shame hast heard?'
G.M. Why no, my dear, what may the matter be?
Can aught down there from swiftest justice flee?
F.F. In sick men's house (b) a man unburied lies.
G.M. His speedy burial who so bold denies?
F.F. Most brief details just now have slowly read,
The sturdy man, they say, not yet is dead.
REV. GEO. A. WATSON.
P.S. (a) Two residents of Sedalia; (b) City Hospital.
Dance Rumor told this most veracious tale,
Her truthful voice, we ever, joyous hail.

The Old Maid.

Has the Home Circle a welcome for a timid old maid? Have pity for the lonely creature, who seeks admittance to the charmed circle of home, and let her have one little corner in which to bask in the genial rays of love and friendship. Old maids are never otherwise than fearfully in the way, yet I will solemnly vow to let the harmony of the Circle remain perfect and thus relieve the not enviable reputation of my sisters who are as unfortunate as I am. I'll say there are none but pretty girls, sprightly widows or silly married women among you. Does that mean no others are admitted? Perhaps if I should introduce myself your hearts would be touched by my sad story. Am a genuine Missouri girl with the usual amount of enterprise, but for twenty-five years have I been seeking a life partner. Failing entirely, am now desperate, and only trying to gather the few stray crumbs of comfort that may fall in my way. May I come?
OLD MAID.
Gallatin, Mo.
Come! Certainly; all are welcome to the Home Circle who love, honor and appreciate its surroundings.—EDITOR.

Fairy Frost Seeks Information.

Dear Circle—We are readers of the RURAL WORLD and are very well pleased with it. I hail with delight the RURAL every week and always look for the Home Circle first. We have a great many fine writers of which we must feel proud. I have never written before and go of course feel rather bashful, but hope there may be some corner in which I may be permitted to look on. I live in the country and like it very well, but would like it better if it was not all prairie. We wish to move some place where there is more timber and where the climate is warmer, on account of the health of my father who is delicate. Have been thinking a little of Arkansas, but we are not certain about the state. Would like to hear from some of the writers who reside there or any one else who can give me information concerning that state. Would like to know about Homestead Lands, if there are any and in what part. In one of the papers I noticed a letter from Bettie Disnought of Boone County and would be glad to hear from her again concerning that and adjacent counties. Being a school teacher, we would like to hear something regarding the schools and wages. I am anxious to hear from any writers and will be greatly obliged.
FAIRY FROST.
Clay Center, Kansas.

Floe Makes a Call.

Good morning, happy Circle! I've been standing on the threshold (caves-dropping) this long, long while, secretly enjoying the scintillations of wit and humor, "tort" and retort, etc., until the temptation to "drop in," has grown irresistible. You are startled at this introduction—and so am I, timid creature! "Who are you—and from what unknown cavern of mysteries do you come?" Well, only a little bundle of much heart and little body, drifting through breakers and brushwood on a fleck tide. I am tired of the combat—the current, and the dripping garments that weigh me down, and would ask admission long enough to don one of the light, cheery robes, wherewith ye are clothed. I would borrow vivacity of spirit, "and be gay and happy too"—entering into your fireside joys with an overflowing relish, and, if I could, elicit such beautiful expressions and tender sympathies as the noble Fred lavishes upon Daisy; I—I'd like to be a daisy, too. It may be so, Fred, that some roughness is essential to a real appreciation of the delicacies of life, but you make a broad miss if you place yourself upon the dull side. You run upon the Circle is a very happy stroke. I appreciate your poetic nature—I, too, would gambol in the realm of rhymes, and drink the music of æolian chimera. As boy with earnest purpose and with laughing eye,
My soul would sport with dreams of poetry.
There, now! I will do something, if it only be to set up another target for The fellow you happily clothe in verse—in garments, well-fitting, bewitching and terse;
But, for my part, I can't tell, in thinking it over,
Whether better he stood on two feet or four.
I hear a chorus of voices singing out—foolish, silly, girl! And so many "high-mettled" pens taking up the echo—foolish—ah!!

Since writing the above, the RURAL WORLD of June 28 is before me. The only representative of the Home Circle this week is Fannie Frost—can it be that the other members have gone en masse to the seaside? But who is this Fannie

Frost, I wonder! Bright, daisy, daisy Fannie! Won't you tell me who she is by some little innuendo that the public won't understand? Please do, I have a "child's" inquiring turn of mind, and a "woman's" curiosity. You say that you can write just as good poetry as I, or May Myrtle. Now, Fanny, I've a suggestion to make. (sub-rosa). Our gallant, noble-hearted Editor says, I'll and May Myrtle are the two best writers in Missouri. I'm sure he meant no harm by it, but—he's never seen any of our poetry. Now, suppose we each write a poem, and let him see that he don't know all the good writers in the State. I'm kind of jealous, ar'n't you? But don't you tell what I have said, for the world! I wish I knew as much about cooking as you do—I'm pretty good at "helping" though; we had an ice-cream supper the other night, and the folks all said it was "nice enough for a wedding." Well, I must go now—we are expecting twenty or thirty threshers to-morrow, and I'll have to enter the role as "Nimble Dick." I'd like "awful" well to see those new babies; I know the little "M. D." is just like its father, for the world!
Dieu ou garde,
FLOE.

Good Health, Etc.

Seasonable Directions for Canning.

CANNING GREEN PEAS.—Minnie McC., and others. To can green peas, partly cook them for about ten minutes, and then put them, while hot, into the cans, without any water; the cans are then covered, and the top soldered down at once, a small hole having been made in the centre. They are then put into a boiler, with plenty of hot water, and boiled for half an hour, then taken out, wiped dry, and a drop of sealing wax or solder put on the hole. The cans being sealed and perfectly air-tight, are then ready to be put away in a cool, dry place.

CANNING TOMATOES.—Martha L. In canning tomatoes, if they are cooked some time, and seasoned with salt, pepper and butter, there will seldom be any trouble about their keeping. I use Mason's self-sealing jars, and keep them in a dark place.
V. J. T.

CANNING STRING BEANS.—Wash and break off both ends of the beans, break them in small pieces. Cook in boiling hot water for ten minutes; put them in the cans and then in boiling water to boil half an hour. Follow the directions given above for canning green peas.

CANNED CORN.—Mr. L. E. S., Stockholm, N. Y. Dissolve an ounce of tartaric acid in half a teaspoonful of water, and take one tablespoonful to two quarts of sweet corn, cook till nearly done, with only a very little water, and while boiling hot, fill the cans, which should be sterilized, when ready to use, turn into a colander or coarse sieve, rinse with cold water, add a little soda and sugar while cooking, and season with butter, pepper and salt.—Farm and Fireside.

Raising and Pickling Cucumbers.

Pickles grow well upon almost any land that is in good heart; they like a freshly plowed sod and land that is a little moist or damp, but not wet. Fresh horse manure suits them as well as any dressing, but it must be well mixed with the soil. The seed may be put in June 20 to July 4, in rows five or six feet apart. Those planted at the earlier date usually bear the heavier crop, but it is not always convenient to get them in early. They are frequently grown as a second crop after peas or early cut grass, and are a very hardy crop for breaking up green sward. Flat turnips may be sown among them at the last hoeing, and make a fair crop after the frost has killed the vines. The pickles are preserved for winter and spring sale by salting. Molasses hogheads answer very well for one year, but the wooden hoops soon break. Linseed oil casks are better, but more expensive, and I know one large establishment where the pickles are all salted in cisterns underground, built of brick and cement. The brine for salting pickles must be strong enough to float a potato; if a little stronger it will do no harm, but if too strong it will wilt the pickles and injure them. They must be kept carefully under the brine, and the brine should be drawn off and poured over them two or three times within the first week after they are salted, otherwise they get too fresh on top and spoil. The brine will ferment slightly, but this does no harm; watch them often, to make sure the brine covers them all, and keep a little salt on the cover for the first week. Peppers, beans, cauliflower, &c., are salted in the same manner for mixed pickles. When wanted for sale, the pickles are scooped out of the brine and placed in a wooden tub, which is changed two or three times a day till the pickles are quite fresh. If a stream of water can be made to flow through them, all the better. When quite fresh, they are taken out of the water and placed directly in vinegar, which may be spiced with pickled peppers, or with West India peppers or allspice, or with anything else the trade demands. With vinegar at 15 cents per gallon, you ought to be able to make pickles at a profit.—The Fruit Record.

Preserving Fruit.

For the proper keeping of all kinds of preserving fruit a dry and cool closet or cupboard is indispensable; it is also of great importance that the tops of the jars should be made perfectly air-tight. The old-fashioned method of spreading paper dipped in brandy on top of jam or jelly is worse than useless, as the spirit will evaporate and leave the fruit unprotected. The best method of closing is, first lay over the top of jams, &c., a piece of clean tissue or thin writing paper, then take thick unglazed white paper (which is sold for the purpose), and cut out pieces half an inch larger all round than the top of the jars; well beat up white of egg and a little flour; spread the mixture with a brush over the paper, and place it with the edged side downward over the jars. It will adhere closely to the edges, and need no tying, and the egg and flour will fill the pores of the paper, and render it completely impervious to air. Preserves thus safely fastened down never get mouldy. Fruit for preserving should always be gathered when perfectly dry, and boiled down as soon as possible after gathering; if it remains for any length of time before being preserved a slight fermentation will take place

which will injure the flavor. If the fruit is allowed to become over-ripe, the preserves will become mawkish and deficient in flavor. All unripe, decayed or otherwise imperfect fruit should be carefully picked out. The boiling should proceed rapidly for a short time; the fruit is neither likely to keep well nor to be of a good color if it is allowed to simmer for a long time. Juicy fruits, such as currants, raspberries, etc., which are now required to be kept whole, are better when allowed to boil for several minutes before the sugar is put into the pan. Fruit which it is desired to keep unbroken should have a little sugar sprinkled over it a few hours previous to boiling, to draw the juice; as this will rarely be sufficient it should have juice from other fruit put in with it into the pan; red currant juice may safely be used for this purpose and it will not spoil the flavor of any other kind of fruit.

Power of Sunshine.

From an acorn, weighing a few grains, a tree will grow for one hundred years, more, not only throwing off many pounds of leaves every year, but itself weighing many tons. If an orange twig is put in a large box of earth, and that earth is weighed, when the twig becomes a tree, bearing luscious fruit, there will be very nearly the same amount of earth. From careful experiments made by different scientific men, it is an ascertained fact that a very large part of the growth of a tree is derived from the sun, from the air, and from the water, and a very little from the earth; and notably all vegetation becomes sickly unless it is freely exposed to sunshine. Wood and coal are but condensed sunshine, which contains three important elements equally essential to both vegetation and animal life—magnesia, lime and iron. It is the iron in the blood which gives it its sparkling red color and strength. It is the lime in the bones which gives them the durability necessary to bodily vigor, while the magnesia is important to all the tissues. This is it that the more persons are out of doors the more healthy and vigorous they are, and the longer will they live. Every human being ought to have an hour or two of sunshine at noon in winter, and in early forenoon in summer.

BUCHU-PALM.—Quick, complete, cure, all annoyances of Kidney, Bladder and Urinary Diseases. \$1. Druggists.

THIS AND THAT.

Wise's Axle Grease keeps the axles bright. William Butler, a full-blooded Cherokee Indian, is a painter in oils and a skilful carver.

Coal oil grease specks the iron. Wise's Axle Grease is made of vegetable oil.

The bust of W. M. Evans, by Bartoldi, is successful in features, but not in the shape of the head.

Ayer's Sarsaparilla is the most effective blood-purifier ever devised. It is recommended by the best physicians.

The American exhibit in the International Fisheries, London, exceeds those of all Europe.

An art loan exhibition will be held in New York next December in aid of the Bartholdi statue pedestal fund.

Mr. Chas. Bang, St. Louis, Mo., says: "I find Brown's Iron Bitters gives satisfaction to all those who use it."

The sculptor Harnisch, of Philadelphia, is busily engaged at work in Rome on the colossal statue of Calhoun, for Charleston, South Carolina.

Faded articles of all kinds restored to their original beauty by Diamond Dyes. Perfect and simple. 10 cents, at all druggists.

The strange announcement has been made by a foreign journal that the Fall Mail Gazette says the Suez Canal is in a fair way to become a stagnant sewer. The stations on its banks drain into it, it is never flushed, there is no tide, and the stench is becoming unbearable.

"I had Salt Rheum for 19 years. Four packages of Dr. Benson's Skin Cure entirely cured me."—F. P. Lavelle, Merced, Cal. \$1. at druggists.

Although three or four crystals of the genuine precious topaz, remarkable for size and clearness, have been found near Pike's Peak, Mr. R. T. Cross asserted that the stone which is called Colorado and sold as topaz to tourists is not topaz at all, but smoky quartz, or the caligera stone of Scotland.

Dr. Pierce's "Pellets," or sugar-coated granules, the original "little liver pills," (beware of imitations)—cure sick and bilious headache, cleanse the stomach and bowels, and purify the blood. To get genuine, see Dr. Pierce's signature and portrait on Government stamp. 25 cents per vial, by druggists.

Walter Evans, a farmer near Reading, Pa., who died recently at the age of 90, had lived on that farm all his life, never left it, and never saw a railroad train.

My wife had fits. "For 35 years," says our correspondent Henry Clark, of Fairfield, Le-nawee Co., Mich., "my wife had fits. They would last about an hour, and sometimes longer. Samaritan Nerve has permanently cured her."

Dr. J. S. Pond of Hagerstown, Ind., who died lately, bequeathed \$20,000 to his widow and from \$200 to \$500 each to all the women who are now old maids whom he courted in his youth. This romantic remembrance required an outlay of \$5,000.

Monroe, Mich., Sept. 25, 1875, Sirs—I have been taking Hop Bitters for inflammation of kidneys and bladder. It has done for me what four doctors failed to do. The effect of Hop Bitters seemed like magic to me.—W. L. Carter.

The amount raised to send abroad the American contribution to the Munich International Art Exhibition did not meet the expenses. The members of the committee had to pay their own insurance (\$6.25 on the thousand dollars), and request other artists sending high-priced works to do the same to the amount of fifty per cent. Neither was there money to decorate the American exhibit as will be done with those of other nations.

Dragging Pains.—Dr. R. V. Pierce, Buffalo, N. Y. Dear Sir—My wife had suffered with "female weaknesses" for nearly three years. At times she could hardly move, she had such dragging pains. We often saw your "Favorable Prescription" advertised, but supposed like most patent medicines it did not amount to anything, but at last concluded to try a bottle, which she did. It made her sick at first, but it began to show its effect in a marked improvement, and two bottles cured her. Yours, etc., A. J. Huyck, Deposit, N. Y.

MOTHER SWAN'S WORM SYRUP.—Infallible, tasteless, harmless, cathartic, for feverishness, restlessness, worms, constipation, 25c.

A QUEEN OF THE STAGE.

"Her Second Love," and the Important Secret She Reveals for the Benefit of Women.

[New York World.]

Several years ago the American public were aroused by the entire upon the stage of a little lady who had been previously but little announced. She was one of an innumerable number of aspirants for public favor and had no instrumentalities, aside from her own talents, to cause recognition. In spite of this fact, however, she quickly achieved a warm place in the heart of the public, which she has continued to hold ever since. When it was announced, therefore, that Miss Maud Granger would star the coming season in the play "Her Second Love," written by Mr. John A. Stevens, it was only natural that unusual interest should be manifested not only in theatrical circles, but in other branches of the community. This was especially the case, as it was known that Miss Granger had, for the past year, been in exceedingly delicate health, and the determination to star in a strong emotional play was the more surprising. One of the staff of this paper was accordingly deputized to see the popular lady and verify the rumor or announce its inaccuracy.

Miss Granger's countenance is familiar to nearly every one in the United States. It is a face once seen never to be forgotten. Features remarkable in their outline and contour are surmounted by a pair of large and deep eyes indicative of the greatest soul power. It is easy to see where Miss Granger obtains the ability to portray characters of the most emotional nature. She possesses within herself the elements of feeling without which no emotion can be conveyed to an audience. The man of news found the lady at her home in this city, and was accorded a quiet welcome. It was evident at once that she was in greatly improved health, which the expression and color of her countenance indicated.

"Is it true, Miss Granger, that you contemplate a starring tour the coming season?"

"Yes, indeed. My season begins in Chicago on the 10th of July. From there I go to San Francisco and then play the remainder of the season through the eastern and western states."

"Are you confident your health will permit such an undertaking?"

A ringing laugh was the first reply to this question, after which she said:

"Certainly. It is true I have been ill for the past two years, but now I am wholly recovered. Few people can have any idea of the strain a conscientious actress undergoes in essaying an emotional part. It is necessary to put one's whole soul into the work in order to rightly portray the character. This necessitates an utter abandonment of one's personality and an assumption of the character portrayed. If this is an emotional part it is necessary to feel the same emotions the part is supposed to feel. For more than a year I actually cried each night in certain passages of a part I was playing. The audience considered it art. Probably it was, but those were none the less real tears and the effect was none the less trying upon my health."

"But do you anticipate avoiding this in the future?"

"Not in the least. I expect to have just as great a strain as before but with restored health and a knowledge of how to retain it I do not fear."

"You speak of a knowledge of how to retain health. Will you please explain what you mean by that?"

"You must be aware that women by their very nature are subject to troubles and afflictions unknown to the sterner sex. The name of these troubles is legion, but in whatever form they may come they are weaknesses which interfere with every ambition and hope in life. I believe thousands of noble women are to-day suffering agonies of which even their best friends and relatives know little or nothing, and when I reflect upon it, I confess it makes me sad. Now all this misery arises largely from an ignorance of the laws of life or a neglect to carefully observe them. I speak from the depths of a bitter experience in saying this, and I am thankful I know the means of restoration, and how to remain in perfect health."

"Please explain more fully."

"Well, I have found a remedy which seems specially adapted for this very purpose. It is pure and palatable and controls the health and life, as I believe, nothing else will. It is really invaluable and if all the women in America were to use it I am quite sure most of the suffering and many deaths might be avoided."

"What is this wonderful remedy?"

"Warner's Safe Cure."

"And you use it?"

"Constantly."

"And hence believe you will be able to go through the coming season successfully?"

"I am quite certain of it."

"A few questions more, Miss Granger. Will you please give me a list of the parts you have created and the plays you have taken part in since your first appearance in public?"

"I first played for some time with the amateurs in New York and Brooklyn. I then went to the Union Square theatre for two seasons, after that to the Boston Globe for one season and then to Booth's theatre in this city. Next I supported John McCullough and afterwards starred in Juliet, Camille, Rosalind, etc. Subsequently I created the part of Cleopatra Blaine in the Galley Slave and also starred in Two Nights in Rome, playing the part of Antonia. The past year I have been playing in the Planter's Wife and the coming season, as I have said, will be devoted to Her Second Love."

As the writer was returning home he fell into a train of musing and wondered if all the women in this land who are suffering could only know Miss Granger's experience and the remarkable results achieved by the pure remedy she used, how much suffering might be avoided and how much happiness secured.

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The Australian Scene is in colors (size 28 x 40 inches—nearly 25 feet wide and over 3 feet long), and shows the manner of traveling in that country with ostriches as a motor. Those who compete for these rewards must send us their list in silver or stamps, when this fine work of art will be sent by mail, neatly packed in a strong tube. The engraving is worth far more than this nominal sum, but we desire to keep a record of those who compete for the prizes and also wish to know of those who desire to know of us.

When writing for the engraving and sending your list of words ask for

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The Stock Yards.

Weekly Review of the Live Stock Market.

WEDNESDAY, July 18, 1888.
Receipts for 24 hours, cattle 3013, hogs 3909, sheep 1379.

CATTLE—Butcher stock sold early and well and gave a good color to the morning market; a little later the abundance of Texans and Indians, and a disposition on the part of interior to get a little advantage on account of full supply made the market look a little blue or slow, but the sellers held the situation and got full prices eventually for interior as well as Eastern shipping cattle. Buyers were urgent in search of good fat Texans, but the quality on sale was not very acceptable. Good fat native steers were 10¢ to 20¢ better than last week. Representative sales:

41 native steers	1273	\$5.40
70 native steers	1172	5.30
42 native steers	1182	5.20
41 native steers	1117	5.15
19 native steers	1259	5.25
18 native steers	1173	5.15
13 native steers	1115	5.10
18 native steers	1410	5.75
11 native steers	1058	5.00
10 native steers	1232	5.25
21 Texas steers	890	4.00
22 Texas steers	889	4.00
22 Texas steers	889	4.00
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22 Texas steers	889	4.00

HOGS—Higher and stronger for everything good to choice light hogs sold at \$5.70 to \$5.85, mixed packing hogs \$4.90 to \$5.20, good to best, heavy hogs—bushers and Philadelphia—\$5.30 to \$5.60 and all kinds sold readily.

48.....280	\$5.25	20.....208	\$5.40
37.....259	5.40	19.....216	5.40
38.....244	5.40	12.....210	5.40
44.....174	5.80	13.....270	5.10
31.....174	5.80	13.....270	5.10
119.....197	5.40	62.....180	5.15
119.....197	5.40	62.....180	5.15
119.....197	5.40	62.....180	5.15
119.....197	5.40	62.....180	5.15
119.....197	5.40	62.....180	5.15

SHEEP—Strong and brisk at \$2.50 to \$4.50 in extremes, with fair to choice first to sell.

MONDAY, July 16, 1888, 2 p.m.
CATTLE—Receipts were fair, and market opened with a good feeling and some show of strength over Friday's quotations on fat cattle, choice cattle selling higher, but unfavorable reports from eastern markets caused an easier and slow feeling before the pens were cleared, and latest sales were made at about Friday's prices. Medium to fair, ruled slow throughout the day. Representative sales:

23 native butchers	1003	\$4.25
23 native butchers	755	4.12
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00
20 grass Indians	850	4.00

HOGS—Market opened fairly active on packing grades and butchers; and about 15¢ higher than Friday, but light hogs ruled slow and a shade easier. Butcher selections sold at \$5.30 to \$5.70. Light hogs \$5.35 to \$5.50. Common to good heavy packing \$4.50 to \$5.15. Representative sales:

17.....289	\$5.10	35.....210	\$4.50
49.....282	5.15	57.....195	5.20
41.....186	5.15	51.....213	5.15
49.....282	5.15	48.....273	5.20
40.....278	5.25	59.....198	5.20
40.....278	5.25	59.....198	5.20
40.....278	5.25	59.....198	5.20
40.....278	5.25	59.....198	5.20
40.....278	5.25	59.....198	5.20
40.....278	5.25	59.....198	5.20

SHEEP—Market fairly active but a shade lower. Sales:

203 Texas	\$3.10	113.....88	\$3.35
60.....93	3.00	79.....82	2.60
75.....74	2.85	2.....2.35	
50 lambs	\$2 each.		

FRIDAY, July 13, 1888, 2 p.m.
CATTLE—The native shipping cattle here sold fairly active at about Thursday's prices, but the native butchers, Texans, and Indian cattle ruled slow and quiet. As compared to previous Friday, good native shipping cattle about 15¢ lower, and market closed steady. All others are 30¢ to 45¢ lower and market closes tame. Receipts had been very heavy. Representative sales:

17 native steers	1088	\$4.80
16 native cows	846	3.80
39 native steers	1017	4.00
35 native steers	1138	5.00
16 native steers	1208	5.30
16 native steers	1437	5.30
22 native steers	1341	5.35
34 native steers	1251	5.30
50 grass Texans	970	4.00

HOGS—Market was active and 10¢ stronger for York weights, selling at \$5.45 to \$5.60—which was about 35¢ lower than the same grade of hogs sold for on previous Friday. Medium weights and butcher selections sold slow at barely Wednesday's prices, \$5.10 to \$5.45 in extremes, or about 5¢ to 75¢ lower than previous Friday. Heavy hogs of all descriptions slow and hard to sell at \$4.40 to \$5.00—or 5¢ to \$1.00 per cwt lower. Pens probably cleared, and market closed comparatively steady on all grades at prices noted in sales annexed. Representative sales:

11.....300	\$4.65	19.....216	\$5.50
21.....188	5.50	69.....280	5.30
47.....183	5.50	31.....282	5.40
25.....283	4.70	23.....173	5.60
16.....229	5.45	30.....207	5.50
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SHEEP—Market fairly active and steady. We quote choice fancy at \$3.85 to \$4.15. Good \$3.50 to \$3.80. Fair \$3.00 to \$3.50. Stockers are dull at \$2.00 to \$2.50, and feeders at \$2.75 to \$3.25.

THURSDAY, July 12, 1888, 2 p.m.
CATTLE—Market for good shipping cattle opened fairly active at Wednesday's prices, but ruled weak and a shade easier at the close. Native butchers, Texans, Indians and green natives sold irregular and weak. Pens cleared. Representative sales:

23 grass Texans	881	\$3.80
46 grass Indians	799	3.75
23 grass Indians	780	3.60
22 grass Texans	900	3.90
49 grass Texans	896	3.60
24 grass Texans	841	3.60
15 grass Texans	821	3.50
20 grass Texans	841	3.50
30 native cows	855	3.75
17 native butchers	922	4.25
17 native steers	1030	4.65
18 native steers	1110	4.65
46 grass Indians	857	4.12
22 grass Indians	906	4.00
45 grass Indians	841	3.80
22 grass Indians	895	3.75

14 native steers	1230	5.60
18 native steers	1127	5.20
47 grass Texans	936	4.10
24 grass Texans	970	4.00
16 grass Texans	823	3.80
37 native steers	997	4.00
82 native steers	1455	5.50
33 native steers	1244	5.25
16 native steers	1215	5.05
30 native steers	1215	5.00
25 native steers	1257	5.00

HOGS—Smoothlight, 165 to 190 lbs average stronger, and sold active at \$5.35 to \$5.50. Medium weights, smooth, 195 to 240 lbs average, sold fairly active at \$5.10 to \$5.40. Heavy hogs of all kinds are dull and nominal at \$4.50 to \$5.20. Representative sales:

105.....104	\$3.20	50.....204	\$3.40
82.....270	5.30	55.....185	5.50
10.....267	4.60	43.....235	5.40
15.....191	5.45	52.....211	5.25
39.....217	5.40	61.....128	5.50
59.....222	5.30	24.....307	4.75
49.....194	5.50	37.....163	5.45
38.....224	5.40	15.....240	4.50
49.....193	5.50	18.....231	5.30

SHEEP—Market fairly active and steady. Sales:

40.....48	\$4.00	70.....102	\$3.05
31 lambs	2.50	141.....28	3.00
51 Texas	3.00	219 Texas	3.00
115 Texas	2.80		

GENERAL MARKET.

Since last the RURAL WORLD went to press the usual exceptional weather has continued, now the most beautiful of summer weather and then storms of wind and rain that threatened to carry everything before them. For growing pastures and root crops this has been, to say the least, endurable, but to the wheat and ripening oats it was anything but a profitable business. We have not heard that corn has suffered, being yet too short in this latitude, but rather the contrary. A run through central Missouri over the Chicago & Alton to Kansas City did not tell a word of loss in regard to the growing corn, for all was short and a good deal of it full of weeds. Still it looked strong, was of good color and gave promise of at least an average crop.

From England we have the following under date of London, July 17th. The *Mark Lane Express*, in its review of the British grain trade for the past week, says: The heavy thunder storms and chilly nights were unfavorable for the crops. Native wheats were generally firmer and dearer. Flour was dull. Foreign wheat unimproved except for fine white, which was firmer owing to scarcity. Flour was in moderate supply. Trade slow. Maize cheaper. Friday mixed American brought 25¢ dd. ex-ship. Cargoes off coast were very quiet. There were 18 arrivals and 5 sales: 12 cargoes were withdrawn and 9 remain, of which 1 is a California cargo. Sales of English wheat during the week were 35,475 quarters at 48s. 2d. per quarter, against 14,522 quarters at 48s. 5d. for the corresponding week of last year.

Chicago is yet in the ebbs and flows of excitement on things generally. The following dispatch to the *Republican* of Tuesday will convey some idea of what is thought there.

A yellow fever epidemic in the South always largely cuts off the Southern demand for bacon, ribs and pork. The provision trade between here and the South is so vast that even with all the other avenues for distribution open, the breaking out of the plague is a financial calamity.

to great Chicago pork packers. This year, however, with the German and French markets closed, with large hog crops abroad, with the American product in bad repute in England and with the prospect of a blockade of Southern markets, yellow fever is right enough looked forward to with more than apprehension. The appearance at San Antonio of two cases on shipboard, which have been sent out twenty miles to sea and quarantined, has, in two days, caused pork to drop \$1.50 a barrel and lard 75¢ per 100 pounds within the same brief time.

There were rumors that hot corn had been discovered in the warehouses at New York. The news increased the weakness caused by the Liverpool failures and the other local bearish influences. It was however denied authoritatively. Indeed, it was a great day for false rumors, one among the others going the rounds being to the effect that the McCreck settlement had fallen through.

The very large shipments of oats, corn and provisions continue, but wheat still remains here and is even arriving faster than it is shipped.

There were no failures announced despite the very great decline in provisions.

The prospects for the cereal crops in Europe are generally favorable. The exceptions are Austro-Hungary, where rust and unfavorable weather have prevailed, and several governments of South Russia, where the crops are threatened with the ravage of the locust. There is some rust to the wheat in Germany. The rye crop of Germany, France and Southeast Russia is not expected to be an average. In Northwest Russia the rye crop has good promise. In the British Isles and in France the wheat crop has very good promise, but in both countries there is a deficit in acreage equivalent on an average yield to about 35,000,000 bushels of wheat. British India harvested a large wheat crop in March last, and the export movement of wheat from thence is quite large. Egypt has just harvested an estimated average wheat crop. Spain has a splendid wheat crop this year, and will not require the usual imports.

In Canada, Eastern provinces, the wheat crop will be under average, but this will be made good by the superabundant crop in Manitoba and Winnipeg.

The winter wheat crop in the U. S. will be considerably deficient when compared with the fine crop of 1882, but the output has now better promise than a month ago. What the deficiency shall be will not be determined till the threshing shall have been completed. It may be fifty millions to eighty millions bushels. The spring wheat crop has good promise, with an expected output estimated by some as high as 130,000,000 bushels, against 115,000,000 bushels in 1882. The wheat crop of the Pacific coast will be large. It is estimated that the aggregate of California, Oregon and Washington territory will be 75,000,000 to 80,000,000 bushels. The early estimates of the Pacific coast wheat crop have always been too large. The latest advices from California place the surplus available for export at 1,000,000 tons, or 37,333,333 bushels. The export surplus of the Pacific coast will be, probably, between 40,000,000 and 45,000,000 bushels, and the quantity required for feed and seed will be about 13,000,000 bushels. This would give an output of about 33,000,000 to 38,000,000 bushels. The probable reserves of old wheat in the country on July 1, 1883, are 87½ to 92½ million bushels. The winter wheat crop of 1872 was 386,572,300 bushels. The estimated acreage of the winter wheat crop of 1883 is 27,734,200 acres, including 3,839,000 for California and Oregon. It is yet to be determined how much of this area has been winter-killed and ploughed up. The estimate has been recently made as high as 1,000 acres.

Concerning the California wheat crop, the *San Francisco Journal of Commerce* speaks thus jubilantly: The bounteous harvest has

changed our destiny and our history for the year. With wheat valued at fifty million dollars to send abroad and miscellaneous goods worth twenty, we will increase our export trade beyond all precedent and indulge in foreign luxuries, or get back the difference over our imports in gold, expend it in assisting manufactures and developing the resources of our coast and attracting hither a numerous and energetic population to fill the still vacant garden spots of our State.

Our home markets are undisturbed. FLOUR—Steady and in fair inquiry for families but mediums low and quiet. We quote: X \$2.90; XX \$3.25; XXX \$3.70; Family \$4.30; choice \$4.25; fancy \$5.50.

WHEAT—No. 2 Red winter (new) cash \$1.05½, No. 2 cash, old \$1.09, No. 3 cash, new 96, old 97½.

CORN—No. 2 mixed, cash 40½, No. 2 white mixed, cash 42.

Butter—Market stagnant and movement small. We quote No. 2 cash 24½.

HAY—Local feeders took about all the choice to fancy timothy and prairie that was offered, but the lower grades were demoralized, the offerings being large and no outlet, shippers doing nothing at all. Sales: E trks—2 cars prime mixed 90; 2 prime timothy \$10; 2 strictly prime do \$11 50¢; 2 choice do \$12 50; 1 at \$13 75; 2 choice at \$14 50; 4 fancy at \$15. On leave—56 bales common mixed \$7 50; 140 prime timothy \$11; 38 strictly prime \$12.

BUTTER—Offerings in excess of the light local inquiry and market quiet and barely steady. Sales of creamery were at 20¢ for choice to fancy, to 22¢ for selections in a small way; dairy at 15¢ to 17¢ for choice to fancy, and 18¢ for selections; fair to good 10¢ to 12¢; common 8¢ to 10¢. Country packed—U. S. changed; receipts and demand both small; quote selected 10¢ to 12¢; medium 6¢ to 8¢; low grade 5¢ to 6¢.

CHEESE—Steady. Round lots from first hands: Prime to choice full stock, 9½ to 10½¢; choice part skims 5¢ to 6¢; inferior 2¢ to 4¢—small way 14¢ higher, according to size of lot.

EGGS—Lower at 12¢ candied, with demand moderate.

POULTRY—Quiet and unchanged. We quote: Spring chickens small and scrubby \$1 25 to 1 50, medium to fair \$1 75 to 2, good to choice \$2 25 to 3; old chickens—cocks 35¢ to 35¢, mixed \$3 50 to 3 75, hens \$4 42 50.

OLD POTATOES—Choice peachblow jobbing at 5¢ to 6¢ but market entirely nominal on other descriptions at from 20 to 35¢.

NEW POTATOES—In fair demand, shipping and prices local. Receipts steadily increasing; and sales sustained. We quote bulk and sacked at 40¢ to 42¢, barreled at \$1 25 for small and inferior to \$1 for fair and \$1 50 for choice large; new by growth (those in wagons) at 45¢ to 50¢ per bu or \$1 25 per 100 lbs measure. Sales: 130 a bush early Ohio at 45¢, 1 car sacked early rose at 45¢ dd, 1 car early Ohio in bbls and 42 and 52 bbls do at \$1 25 per bu.

ONIONS—Few offerings, and these selling fairly at 65 to 75¢ per bu in sks.

TOMATOES—Plentiful and in fair demand, considerable overripe and soft stock offering. Sales at 50¢ to 60¢ per ½ bu box for soft to 70¢ for choice; home-grown at \$2 25 to 2 50 per bu loose, farm wagons.

CABBAGE—Plentiful and dull at \$1 75 per crate for home-grown on orders.

WHITE BEANS—Quiet. Jobbing from store: Eastern—Hand-picked navy \$2 35 to 2 45, do medium \$2 25 to 2 35, screened navy \$2 25 to 2 35, do medium \$2 15 to 2 25. Country—Good to prime \$1 50 to 1 60.

APPLES—Choice shipping stock in fair request and steady, but overripe, small and poor stock very dull and low-priced. We quote consignments in bbls at \$1 15 to 1 50 for poor to fair, \$1 75 to \$2 25 for good to choice shipping boxes at 15¢ to 30¢ per ½ bu. Sales: 8 bbls soft at \$1 40, 11 do at \$1 35, 20 various at \$2 10, 50 do at \$2 15.

PEACHES—Scarce and choice stock in good demand. A few bxs from Southern Illinois (all that was offered) sold at \$1 25 per ½ bu.

PLUMS—Quiet and steady. Sound wild goose at 75¢ and chickasaw at 40¢ to 50¢ per ½ bu box.

WATERMELONS—Lower but in fair demand. We quote: Georgia at 15¢ to 16¢ and Texas at 10¢ to 12¢ per 100 in car lots dd. Sales: 1 car Georgia at \$15 10 do at \$16—both dd.

BLACKBERRIES—Unchanged. Free sales of soft stock from Arkansas (received Sunday and held over until yesterday morning and some Southern Illinois which came in late Saturday and sold that evening) at 75¢ to 80¢ per gal case; sound quotable at \$1 50 to 1 60 per gal case for wild, \$2 50 to 3 00 for cultivated. Home-grown cultivated brought 80¢ to 90¢ per gal loose from wagons.

RASPBERRIES—Scarce and higher; season about over. Light sales of home-grown from farmers' wagons at 75¢ per gal for black, 80¢ for red.

WHORTLEBERRIES—In fair request a \$2 50 to 3 00 per gal case for sound ripe.

GRAPES—Saleable at 80¢ to 100¢ per bu. A few ½ bu boxes Arkansas sold at \$1 each.

DRIED FRUIT—Inactive and unchanged. Apples—6 for dark to 7 to 7½ for fair to prime. Peaches at 5¢ for fair to 6 for prime halves; wormy or bly dark fruit less. Sales: Apples—17 bbl dark at 5½¢, 6 sks fair at 7¢. Peaches—8 sks wormy at 3¢; besides several small lots apples and peaches at quotations.

GRASS SEEDS—Some trading in German millet, but nothing done in other seeds. We quote nominally: German millet 40¢ to 51¢; common millet 30¢ to 45¢; Hungarian 40¢ to 45¢; redtop 50¢ to 75¢; clover 50¢ to 75¢; timothy \$1 50 to 1 65—August delivery \$1 50 to 1 55. Sales: 24 and 27 sks German millet at 46¢.

FLAXSEED—Very quiet at \$1 50 to 1 60.

HEMPSEED—Steady, with \$1 30 bid for spot and July del. Sale 5 cars August delivery at \$1 22.

CASTOR BEANS—Nominal at \$1 35 for prime.

COTTON SEED AND MEAL—Seed quotes at \$1 30 on leave; meal \$2 00 per ton in car-lots.

HONEY—Demand light; strained and extracted at 6½ to 7¢, new comb at 14 to 15¢—old do less.

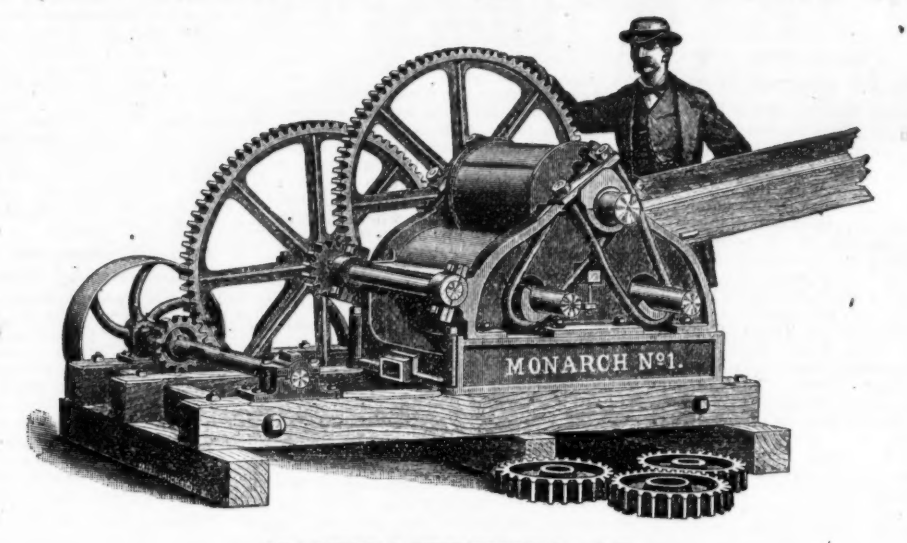
BROOM CORN—Inquiry fair; steady. We quote: Crooked, short, etc., 1½ to 2½¢, prime 3 to 4¢, long green hurl 5 to 7¢.

WOOL—Very quiet and unchanged. Clear bright straight lots sought most and firm in price, but few of such to be had; all else inactive and easy, with offerings (though light) in excess of demand. Considerable stock still held here on limits or above current prices; besides dealers generally have much more than they can profitably work off, the demand of late being mainly speculative.

Quote: Tub-washed—choice at 83½ to 84¢, fair at 82 to 83¢, dingy and low at 77 to 80¢; unwashed at 72 to 75¢, bright medium 23 to 24¢, fair to good do at 21 to 22¢, combing (½-blood) 21½ to 22½¢, low grades 16 to 18¢, bright light fine 21 to 22¢, heavy do 16 to 18¢; Kansas—choice bright medium at 19 to 21¢, medium fine 16 to 18¢, heavy fine 13 to 15¢, coarse combing 15 to 17¢, carpet fine 13 to 15¢. Black, burry and cotted sold at 5 to 10¢ per lb less than the above figures. Sales: 12 sks heavy fine 17½¢, 3 burry at same, 7 burry at 18¢, small lots at 13 to 23½¢, 4 choice at 24¢; tub—14 sks low at 31¢, 10 poor to choice at 33 round 14 choice at 34¢.

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